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The December *Review*

Time-use studies in general, and the American Time-Use Survey (ATUS) in particular, are valued primarily for what they tell labor economists about the time workers spend away from the job. Harley Frazis and Jay Stewart remind us that time-use surveys do, in fact, contribute to our understanding of time on the job as well. Their analysis of working hours shows that ATUS and the Current Population Survey (CPS) produce similar estimates of hours at work for the weeks containing the 12th day of a month, but that the week containing the 12th is often the week in which people work the most hours. To a great extent, this reflects a deliberate choice: The week containing the 12th was selected as the government's standard reference week for surveys because it was the week in which the fewest holidays fall.

William J. Wiatrowski explores the impact of recent changes in the Occupational Safety and Health Administration's recordkeeping requirements on the analysis of the Bureau's workplace safety and health statistics.

Craig Brown reports on the advantages and disadvantages of using data from sources outside the Consumer Price Index (CPI) relative to using in-house data to perform hedonic regressions for the purpose of quality adjustment.

Jerome Pikulinski summarizes the new and emerging occupations identified in the 2001 Occupational Employment Survey.

In a new department, "Workplace Safety and Health," Stephen Pegula reports on fatal work injuries at road construction sites.

Factory compensation

In the United States, hourly compensation costs for production workers in manufacturing increased to $21.97 in 2003. These costs were higher than those in all the economies covered outside Europe, but ten European countries had higher hourly compensation costs (expressed in U.S. dollars) than did the United States. (Hourly compensation costs include hourly direct pay, employer social insurance expenditures, and other labor taxes.)

The strength of the European currencies in 2003 drove costs in those countries, as measured in U.S. dollars, up. Costs in the countries which use the euro as a currency rose the most, while costs in several of the European countries that do not use the euro (for example, the United Kingdom) rose less. The average for the 18 European countries in 2003 rose to more than $24 per hour. Costs in Germany nearly reached the $30 level.

Compensation costs in U.S. dollars in Canada also grew. In contrast, Mexican costs dropped. The drop was associated with a weakening peso and an increase in compensation costs on a national currency basis that was lower than average. For more information, see "International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing, 2003," news release USDL 04-2343.

Car quality 2005

The value of quality changes in 2005 model-year cars averaged $283.12. This figure represents 73.8 percent of the average increase in manufacturers' invoice prices. In the light truck segment, $306.26 in quality changes accounted for 75.7 percent of average increases in invoice price.

The retail equivalent value of the quality changes to 2005 model-year passenger cars averaged $310.50, or 74.3 percent of the over-the-year increase in manufacturers' suggested list prices. The retail value of the quality changes broke down to $193.11 for safety improvements and $117.39 for other quality changes, such as emission improvements, changes in audio systems, and changes in levels of standard or optional equipment.

The retail equivalent value of quality changes for domestic light trucks averaged $345.38, representing 75.2 percent of the average increase in manufacturers' suggested list prices. The quality changes broke down to $18.30 for federally mandated safety improvements, $120.43 for nonmandated safety improvements, and $206.65 for other quality changes such as powertrain improvements, theft protection, changes in audio systems, and changes in levels of standard or optional equipment.

Estimates of the value of quality change are based on a review of data supplied by producers for similarly equipped 2004 and 2005 domestic vehicles priced in the Producer Price Index (PPI). For more information, see "Report on Quality Changes for 2005 Model Vehicles," news release USDL 04-2351.

Clarification

In Jonathan A. Schwabish's September article on wages and benefits, footnote 18 suggests that the distinction between defined benefit and defined contribution plans is unclear in the Employment Cost Index (ECI) survey. While that may have been true in the past, for the last decade, data used to compile the ECI has distinguished between defined benefit and defined contribution retirement plans using definitions consistent with other BLS surveys. Prior to 1995, ECI retirement costs used a different allocation scheme that classified retirement costs as "pensions" or "savings and thrift plans." Despite the change in definitions, the total cost of retirement benefits was not affected; what changed was the distribution of the costs among the types of retirement benefits. □

What can time-use data tell us about hours of work?

Estimates of hours worked from the CPS are very close to estimates from the ATUS for CPS reference weeks; however, CPS reference weeks are not representative of the entire month

Harley Frazis
and
Jay Stewart

The number of hours people work for pay is an important economic measure. In addition to being a measure of labor utilization, it is a component of other economic statistics. For example, productivity measures are computed by dividing total output by total hours worked, and hourly wages are often computed by dividing usual weekly earnings by usual weekly hours worked.[1] There are two major sources of hours data for the United States—the BLS Current Population Survey (CPS) and the BLS Current Employment Statistics survey (CES)—and estimates of weekly hours from these two surveys behave differently for a variety of reasons. The goal of this article is to use data from the new American Time Use Survey (ATUS) to shed light on the accuracy of hours-worked reports in the CPS. Because the purpose of this study is to determine whether respondents report hours correctly in CPS, it does not examine other factors that could result in differences in estimates of hours worked from CPS and ATUS. In addition to differences in the reporting of hours, differences in estimates can be due to differences in sample composition and differences in the reporting of other variables.[2] We control for these other factors, but do not analyze their effects on differences in estimates. We examine the effect of these other factors on comparisons of weekly hours from CPS and ATUS in a forthcoming publication.[3]

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Previous studies

Previous studies that assess the accuracy of hours data from establishment surveys either compare hours data for the same industries across surveys, or evaluate accuracy using cognitive methods such as focus groups and interviews with respondents.[4] The former approach allows researchers to document differences between surveys (after accounting for differences in concepts), while the latter provides information on how respondents compile their data. Studies that are directed at verifying hours measures from household surveys such as the CPS typically take one of two approaches: they compare weekly hours reports from a CPS-like question either to (1) records from the individual's employer or (2) data collected from the individual using a time diary.

Studies by Wesley Mellow and Hal Sider[5] and Willard L. Rodgers, Charles Brown, and Greg J. Duncan[6] took the first approach. Both studies assumed that employer-reported hours were correct, and that any difference between the two measures was due to respondent error. The Mellow and Sider study found that, compared with employer reports, respondents overreported hours by 3.9 percent on average, and that overreporting was greater for self respondents than when a proxy provided the information (4.3 percent versus 3.4 percent). They also found that overreporting was greater among managerial and professional workers (11 percent). However, because these workers tend to be salaried, it seems unlikely that their employers kept records of their actual hours worked and instead reported the hours of a standard workweek.

In contrast, Rodgers, Brown, and Duncan found very little measurement error on average. However, differences in the samples provide the most likely explanation for the different results. The sample in the Rodgers, Brown, and Duncan study was restricted to hourly-paid workers at a single firm. Further, all of the workers in their study were unionized, and most were full time. All of these characteristics would lead to more stable work schedules, which should reduce reporting errors. In contrast, the data in the Mellow and Sider study came from a special supplement to the CPS in which respondents' employers were contacted and asked to provide hours and earnings information. Thus, their sample is representative of the entire employed civilian population.

The study that most closely resembles the one in this article was done by John Robinson and Ann Bostrom in 1994.[7] They compared time-diary estimates of hours worked from surveys conducted during 1965, 1975, and 1985, to estimates from CPS-like questions about hours worked last week asked during the same surveys. One drawback of using time-diary data from these surveys is that the data were collected only for a single day. To overcome this, they constructed synthetic weeks by combining diaries of demographically similar respondents. Another drawback is that the reference periods for the two measures of hours worked do not cover the same time period. The reference day for the time diary is the day prior to the interview, while the reference period for the CPS-like question is the week prior to the interview. Their results indicated that respondents overreport hours in the CPS-like question, that women tend to overreport more than men, and that the extent of this overreporting has increased over time. These authors also found that overreporting was greater among those who reported the longest hours in the CPS-like question. However, Jerry A. Jacobs in 1998 argued that the relationship between overreporting and reported hours worked is due to regression to the mean.[8] Regression to the mean arises because people who worked unusually long hours during the previous week (the reference period for the CPS-like question) were more likely to work more-normal hours during the week in which the time diary was collected. Jacobs's analysis indicates that estimates of time spent at work are very close to estimates of work hours from a retrospective question, suggesting that self-reported hours are fairly accurate.[9]

One possible explanation for the disagreement on the extent of overreporting between these two studies is that they used different measures of work. The Robinson and Bostrom study used actual work time as collected in the time diary, whereas Jacobs used time spent at work. If respondents take time off in the middle of the day to eat lunch or run errands, then the time-spent-at-work measure will overstate time spent working. On the other hand, work that is done at home after hours will be missed by this measure, but will be captured by the actual-time-worked measure.

The current study contributes to this literature by using ATUS data to examine the accuracy of reporting in the CPS. Because the ATUS sample is drawn from households that recently completed their participation in the CPS, it is possible to link ATUS respondents' interviews to their final CPS interviews. Thus, we can compare estimates of hours worked generated from ATUS time diaries to those generated from the actual CPS questions, rather than from a CPS-like question.

One difference between ATUS and CPS survey methods turns out to be unexpectedly important in this comparison. CPS respondents report their labor force activity for the week containing the 12th of the month. This reference week was chosen to avoid holidays. In contrast, ATUS interviews are conducted over the entire month. We find that CPS hours reports are, on average, quite similar to those from ATUS for the CPS reference week, but the reference week is not representative of the entire month.

About the data

The data used in this study are from the new American Time-Use Survey. The ATUS sample is a stratified random sample that is drawn from households that have completed their participation in the CPS and is representative of the U.S. civilian population. The data cover the January–December 2003 period. Interviews were conducted every day during the year except for a few major holidays. Thus, the data cover the entire year, except for the days before these holidays. About 1,725 diaries were collected each month for a total sample size of 20,720. The response rate for 2003 was about 58 percent. Interviews with fewer than five activity spells or more than 3 hours of uncodeable activities were dropped from the sample.

As in other time-use surveys, respondents are asked to sequentially report their activities on the previous day. The diary day starts at 4 a.m. and goes through 4 a.m. of the following day (the interview day), so each interview covers a 24-hour period. The respondent describes each activity spell, which the interviewer either records verbatim or, for a limited set of common activities (such as sleeping or watching television), enters a numerical code. These responses are translated into 3-tier activity codes.[10] For each episode, the ATUS collects the start and stop times along with other information.[11] The ATUS does not collect information about secondary activities (for example, listening to the radio while driving) in the time diary. This lack of information on secondary activities should have only a minor impact on time spent in paid work, because most paid work is done as a primary activity.

The ATUS also contains labor force information about the respondent that was collected using a slightly modified version of the basic CPS questionnaire. These questions allow analysts to determine whether the respondent is employed, unemployed, or not in the labor force.[12] One notable differ-

ence between ATUS and CPS employment questions is that the reference period in ATUS is the 7 days prior to the interview—the last day being the diary day—instead of the previous calendar week as in CPS. The sample for this study is respondents 16 years and older who worked at a job during the 7 days prior to their ATUS interview and reported usual hours.

The ATUS collects usual hours worked on respondents' main and other jobs, but does not collect actual hours. Having data on actual hours would be an advantage, because the time diary collects actual hours—and because using actual hours would make our results more comparable to those of other studies. But there is a potential problem with using time-diary estimates of actual hours collected during the ATUS interview: the procedure used for contacting respondents in ATUS could impart bias into estimates of actual hours for the previous 7 days. Each designated person is assigned an initial calling day. If he or she is not contacted on that day, the interviewer makes the next call 1 week later, thus preserving the assigned day of the week. Individuals who are unusually busy during a particular week (perhaps because they worked long hours) are less likely to be contacted during that week, making it more likely that they are contacted the following week (and asked to report hours for the busy week). Hence, long work weeks would tend to be oversampled, resulting in a correlation between hours worked during the previous week and the probability that that week is sampled.

Definitions of hours worked

For our comparisons, we consider three alternative measures of hours worked and one measure of time at work from the time diary data:

- definition 1: Time spent in activities coded as paid work in the time diary.
- definition 2: Definition 1 plus breaks of 15 minutes or less and work-related travel (travel between work sites).
- definition 3: Definition 2 plus time spent in work-related activities.
- definition 4: Total elapsed time between the start time of the first episode of paid work and the stop time of the last episode of paid work.[13]

These definitions were chosen for comparison because they represent possible ways that respondents might report hours of work, although, conceptually, one can make a strong argument for using any of definitions 1-3. Of these three definitions, definition 1 is the most restrictive and, based on the descriptions in John Robinson and Ann Bostrom and John Robinson and Geoffrey Godby, [14] is the one used in the earlier studies to verify hours. This definition was also used by BLS in its recent ATUS press release. Definition 2 corresponds to the definition of hours used for productivity measurement. The inclusion of breaks is appropriate because, as Daniel Hamermesh[15] argues, breaks are productive. [16] On a more practical level, not all respondents report breaks as separate episodes, so definition 2 imposes more consistency across respondents. Definition 3 includes work-related activities—activities that are done for the respondent's job or business, but may have a leisure component and take place outside normal work hours (for example, dining or playing golf with clients or customers). Empirically, there is very little difference between definitions 2 and 3. Definition 4, which is similar to Jacobs's 1998 time-at-work measure,[17] is potentially problematic because it could include time spent doing nonwork activities, such as running personal errands during work hours. Abraham, Spletzer, and Stewart[18] speculated that the pattern of overreporting found in Robinson and Bostrom[19]—that hours are overreported in retrospective questions and that overreporting has increased over time—could be due to the increased flexibility and variability of work schedules. For example, a worker who arrives at work at 8 a.m. and leaves at 6 p.m. might report working a 50-hour week, even though he or she usually takes a 2-hour break each day to run personal errands. Under definition 4, these workdays would be 10 hours long. Jacobs's result of very little difference between the time-at-work measure and the CPS-like measure is consistent with Abraham, Spletzer, and Stewart's speculation.

Comparing ATUS and CPS hours measures

We compare the four definitions of time-diary measures of hours worked from the ATUS to retrospective measures from these respondents' final CPS interview. First, hours worked in the time diary are compared to usual hours worked per week from the employment section of the ATUS questionnaire. The advantages of this comparison are that the questions were asked in the same interview and that reference periods for the different measures are close in time. For each of the time-diary estimates, responses were reweighted so that each day of the week receives equal weight (1/7 of the total) and used these reweighted responses to compute the average number of hours worked per day for workers. In order to make the time diary measure—which records hours worked per day—comparable with hours worked per week, these estimates were multiplied by 7. Thus, sample averages should be an unbiased estimate of average hours worked per week for the population.

Row (a) of table 1 shows the comparisons for our base sample. Usual hours worked per week reported in the ATUS (using a slightly modified version of the CPS question) are, on average, about 2-3 hours higher than the diary-based measures. The closest figure is 40.9 hours using definition 4—

Table 1. Comparison of time-diary estimates of average weekly hours to estimates from CPS questions

Respondent	ATUS definitions of paid work				CPS definitions of paid work		
	Definition 1: Work only (ATUS definition)	Definition 2: Work plus breaks plus work-related travel	Definition 3: Work plus breaks plus work-related travel plus work-related activities	Definition 4: Start time minus stop time	Usual hours in ATUS	Usual hours in CPS	Actual hours in CPS
(a) Worked last week, usual hours reported in ATUS (N = 11,988)	37.6	38.0	38.2	40.9	40.3	...	...
(b) (a) and worked during CPS reference week and reported usual hours reported in CPS (N = 10,036)	38.7	39.2	39.3	42.2	41.3	40.0	39.4
(c) (b) and usual hours in CPS and ATUS were within 5 hours of each other (exclusive). (N = 6,268)	37.3	37.8	37.9	40.7	39.3	39.3	38.6
(d) (c) and ATUS diary day not during CPS reference week (N = 4,767)	36.8	37.3	37.4	40.2	39.2	39.2	38.3
(e) (c) and ATUS diary day during CPS reference week (N = 1,501)	38.8	39.3	39.5	42.3	39.7	39.7	39.3
(f) (d) and ATUS diary day not a holiday[1] (N = 4,703)	37.4	37.9	38.0	40.8	39.3	39.2	38.4

[1] Holidays include New Year's Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. Interviews were collected for all except Thanksgiving and Christmas.

the time work stopped minus the time work started. This definition yields an estimate 0.6 hours greater than the usual hours worked figure.

Another interesting, and possibly more appropriate, comparison is to compare the time-diary measures with retrospective reports of actual hours worked per week. The ATUS does not collect such a measure. However, the CPS does; so, if a respondent worked during the period covered by his or her last CPS interview, his or her reported actual weekly hours from CPS can be compared with hours worked from the ATUS time diary. The results of this comparison are shown in row (b). Actual hours reported in the CPS are much closer to diary hours for definitions 1-3, but are about 3 hours less than the diary hours for definition 4.

One problem with comparing actual CPS hours to ATUS hours from the time diary is that the CPS interviews occurred, on average, 3 months before the ATUS interview, and respondents' work schedules may have changed during that time.[20] Indeed, usual weekly hours reported in ATUS are on average 1.3 hours greater than usual hours reported in the last CPS interview. This change in usual hours presents problems in interpreting the comparison of CPS actual hours to the time-diary measures, because one would expect that actual hours may have changed as well. Looking at the CPS as a whole (not just the sample matched with ATUS), there is no evidence that usual (or actual) hours worked increased between October 2002 (the period that the January 2003 ATUS sample was drawn) and the end of 2003.[21] Together, these facts suggest either that persons whose work hours increased were more likely to respond in ATUS, or that persons were more likely to report a high number of hours in ATUS than in CPS for the same jobs despite the fact that the questions are the same in both surveys.[22] If the first explanation is correct, the two measures are not comparable because they were reported at different times.

To control for changes in usual hours, the sample is further restricted to individuals whose reported usual hours in the CPS and in ATUS were within 5 hours (exclusive) of each other.[23] This comparison is shown in row (c). The results show a greater difference between definitions 1-3 and CPS actual hours than in row (b). Diary hours corresponding to definition 1 are less than CPS actual hours by 1.3 hours, whereas they are only 0.8 and 0.7 hours less than CPS actual hours for definitions 2 and 3. All of these differences are statistically different from CPS actual hours at the 10-percent level using a 2-tailed test.

One factor that could affect these comparisons is that the reference week for the CPS (the week containing the 12th of the month, as mentioned above) was chosen to avoid holidays. Therefore, one might expect hours of work to be greater, on average, in CPS reference weeks than in nonreference weeks. Rows (d) and (e) show that this is indeed the case: for all measures, diary hours in reference weeks exceed diary hours in nonreference weeks by approximately 2 hours. Using the entire base sample (as in row (a)), rather than the restricted sample (as in row (c)), shows an even larger difference: about 2.6 hours for definitions 1-3 and 2.9 hours for definition 4. Thus, it is more appropriate to compare actual hours from CPS

to time-diary estimates that include only diaries that are in the 12 CPS reference weeks.

Comparing the CPS measure of actual hours to the time-diary measures in row (e) indicates that they are quite close for definitions 1-3 when the diary day is in a CPS reference week. Except for definition 4, none of the diary measures are statistically different from the CPS measure. In contrast, when the diary day is not in a CPS reference week, CPS actual hours exceed time-diary hours for definitions 1-3 by 0.9 to 1.5 hours (all of these differences are statistically significant at the 5-percent level using a 2-tailed test). To illustrate the effect of holidays, we recomputed the time-diary estimates for nonreference weeks excluding major holidays and reweighting the remaining diaries so that each day of the week is weighted the same. This exclusion reduced the difference between CPS actual hours and the diary measure by about half an hour, with only the definition 1 difference remaining significant.

In summary, estimates of hours worked from time diaries are significantly lower than estimates of *usual* hours worked. However, when the sample is restricted to respondents whose usual hours did not change much between their final CPS interview and their ATUS interview, average time-diary hours are close to average *actual* hours as reported in CPS. These estimates are indistinguishable from each other when the ATUS diary day falls in a CPS reference week. When the diary day falls outside the CPS reference week, time-diary estimates are significantly lower than estimates of actual hours worked from CPS. The implications of these results are discussed later.

Table 2 shows comparisons for individuals whose usual hours changed by less than 5 hours (the sample in rows (c) through (f) of table 1), tabulated by sex, education, and full- or part-time status. Men's diary hours are quite close to actual hours reported from CPS, with definition 2 hours being equal to CPS actual hours to one decimal place. Women report fewer hours in the time diary than in CPS for definitions 1-3 (all differences are statistically significant at the 5-percent level). This pattern of differential overreporting is also found in Robinson and Bostrom.[24] They argue that women may be more likely to work part time and have variable schedules, which would make it harder to report their work hours. Although we do not know why women's hours are overreported, we can rule out differences in reporting behavior between men and women. The difference between CPS hours and diary hours is virtually identical between women who self-reported hours in CPS and those whose hours were reported by proxy respondents (who are often spouses). Table 2 also shows comparisons between measures for different educational groups. The sample is further restricted to those ages 25 and older in order to minimize the influence of respondents who are still in school. The results show a consistent pattern, although the differences between CPS actual hours and diary hours are not very precisely estimated. More education is associated with more overreporting of hours in CPS relative to the diary. For high school dropouts, diary hours are slightly higher than CPS actual hours, although the difference is not significant. For high school graduates and those with some college, diary hours are quite close to CPS actual hours, at least for definitions 2 and 3. For college graduates, diary hours are less than CPS actual hours by 1.6 to 2.0 hours per week for definitions 1-3; these differences are statistically significant at the 5-percent level.

Table 2. Comparison of time-diary estimates of average weekly hours to estimates from CPS questions, by selected demographic characteristics

Respondent	ATUS definitions of paid work				CPS definitions of paid work		
	Definition 1: Work only (ATUS definition)	Definition 2: Work plus breaks plus work-related travel	Definition 3: Work plus breaks plus work-related travel plus work-related activities	Definition 4: Start time minus stop time	Usual hours in ATUS	Usual hours in CPS	Actual hours in CPS
Sex							
Men (N = 2,874)	40.4	40.9	41.0	43.9	41.6	41.5	40.9
Women (N = 3,394)	34.2	34.6	34.7	37.4	37.1	37.1	36.2
Education (age 25 and older)							
No high school diploma (N = 417)	38.5	39.1	39.2	41.9	39.6	39.6	39.0
High school diploma (N = 1,678)	37.5	38.2	38.2	40.7	39.4	39.4	38.7
Some college (N = 1,793)	37.8	38.3	38.4	41.2	39.7	39.6	38.9
College graduates (N = 1,989)	37.8	38.1	38.2	41.7	41.0	41.0	39.8
Full-/Part-time status							
Full time (N = 5,408)	39.4	39.9	40.0	43.0	42.0	42.0	41.2
Part time (N= 860)	23.0	23.2	23.3	24.5	21.8	21.8	21.3

NOTE: The universe for this table is the restricted sample as defined in row (c) of table 1 (individuals who worked during the reference week in ATUS and the reference week in CPS, and whose usual hours in CPS and ATUS were within 5 hours of each other (exclusive). For the education comparisons, the sample was restricted to respondents age 25 and older. Full- / part-time status is determined using the response to usual hours worked in CPS. Respondents who usually work 35 or more hours per week are full time.

Finally, table 2 compares work hours by full-time and part-time status based on the usual-hours question in ATUS (full time is defined as 35 hours or more usually worked). Time-diary hours for part-timers are above actual hours reported in CPS, while for full-timers they are below. Differences between ATUS hours and CPS actual hours are significant at least at the 10-percent level for definitions 1-3 for part-timers, and at the 1-percent level for full-timers. One obvious explanation for this is regression to the mean, as those with unusually high or low hours in CPS revert to more typical values. However, note that our procedure of limiting the sample to those with similar usual hours in CPS and ATUS should help limit this problem. By way of comparison, performing a similar procedure with CPS data by comparing actual hours 3 months apart for those whose usual hours have changed less than 5 hours shows no increase in hours for part-timers or decrease for full-timers.

Implications. Our results indicate that, for ATUS respondents, estimates of actual hours worked from the CPS are very close to time-diary estimates for the CPS reference week. On the other hand, it also appears that the CPS reference week is not representative of the month as a whole, as there is a significant difference in hours between reference and nonreference weeks. The fact that CPS reference weeks avoid holidays simplifies the task of tracking employment and hours trends using CPS data. However, a measure of monthly hours worked constructed from CPS average weekly hours data would overstate actual hours worked during the month.

The fact that hours for some groups (such as women and college graduates) are significantly overreported has implications for measuring differences in hourly wages between groups. Typically, studies that examine between-group differentials use usual hours worked in the denominator of their hourly earnings measure.[25] To illustrate the effect of overreporting by college graduates, if actual hours from the time diary (under definition 2) are used instead of usual hours from the CPS, the college-high school hourly earnings ratio would be 4.1 percent higher. Performing a similar experiment, the female-male hourly earnings ratio would increase by 5.4 percent. It is worth noting that, unless reporting patterns have changed over time, this differential overreporting should have a relatively small impact on trends.

Various important economic indicators, including the BLS average hourly earnings series and productivity measures, use data on work hours from the BLS CES program. The CES collects data from establishments for the pay period that includes the 12th of the month; unlike the CPS, this period is longer than the week including the 12th. In addition, the CES measures hours paid rather than hours worked. Thus, the CES hours paid will be much more representative of hours paid over the entire month than the CPS is of hours worked over the entire month—both because the CES covers a longer period and because much of the time off for holidays is paid.[26]

OUR COMPARISON OF HOURS WORKED IN ATUS AND CPS indicates that the CPS measure of actual hours is, on average, fairly close to all three of the time-diary definitions of hours worked when the diary day is in the CPS reference week (the week that includes the 12th of the month). However, for the other 3 weeks of each month, the CPS measure of actual hours is approximately 5 percent higher than the hours collected in the ATUS. There is variation in this correspondence between groups: for women and college graduates, reported hours of work are higher in CPS than in ATUS. Analysts should also keep in mind that judging by ATUS, workers work longer hours on CPS reference weeks than other weeks.

Because we have only 1 full year of data, we are unable to report on trends in the reporting of hours worked. In the future, as ATUS data accumulate over several years, we will determine to what extent there are changes in hours reporting in CPS causing them to diverge from ATUS reports. □

Notes

[1] For a discussion of the importance of hours data for measuring real hourly wages, see Katharine G. Abraham, James R. Spletzer, and Jay C. Stewart, "Divergent Trends in Alternative Wage Series," in John Haltiwanger, Marilyn E. Manser, and Robert Topel, eds., *Labor Statistics Measurement Issues*, NBER Studies in Income and Wealth, Vol. 60, (Chicago, University of Chicago Press, 1998) pp. 293–324; Katharine G. Abraham, James R. Spletzer, and Jay C. Stewart, "Why Do Different Wage Series Tell Different Stories?" *American Economic Review Papers and Proceedings*, Vol. 89, No. 2, 1999, pp. 34–39; and Lucy P. Eldridge, Marilyn E. Manser, and Phyllis Flohr Otto, "Hours Data and Their Impact on Measures of Productivity Change." Paper presented to the NBER Productivity Program meeting, Boston, March 2004.

[2] For example, the ATUS has a higher multiple jobholding rate than does CPS, which would tend to result in ATUS hours exceeding CPS hours.

[3] Harley Frazis and Jay Stewart, "Where Does the Time Go? Concepts and Measurement in the American Time-Use Survey," in Ernst Berndt and Charles Hulten, eds., *Hard to Measure Goods and Services: Essays in Memory of Zvi Griliches*, NBER Studies in Income and Wealth (Chicago, University of Chicago Press, forthcoming).

[4] Sylvia Fisher, Karen Goldenberg, Eileen O'Brian, Clyde Tucker, and Diane Willimack, "Measuring Employee Hours in Government Surveys." Paper presented to the Federal Economic Statistics Advisory Council, Washington, DC, June 2001; and Karen L. Goldenberg and Jay Stewart, "Earnings Concepts and Data Availability for the Current Employment Statistics Survey: Findings from Cognitive Interviews," in *Proceedings of the Section on Survey Research Methods*, American Statistical Association, 1999.

[5] Wesley Mellow and Hal Sider, "Accuracy of Response in Labor Market Surveys: Evidence and Implications," *Journal of Labor Economics*, Vol. 1, No. 4, 1983, pp. 331–44.

[6] Willard L. Rodgers, Charles Brown, and Greg J. Duncan, "Errors in Survey Reports of Earnings, Hours Worked, and Hourly Wages," *Journal of the American Statistical Association*, December 1993, pp. 1208–18.

[7] John Robinson and Ann Bostrom, "The overestimated workweek? what time diary measures suggest," *Monthly Labor Review*, January 1994, pp. 11–23.

[8] Jerry A. Jacobs, "Measuring time at work: are self-reports accurate?" *Monthly Labor Review*, December 1998, pp. 42–53.

[9] The dataset that Jacobs used, the 1992 National Survey of the Changing Workforce, collected information on when respondents typically left for and returned from work, typical commute times, and number of days worked per week.

[10] The verbatim responses are coded by coders, while the numerical codes are translated into activity codes during processing. See a forthcoming issue of the *Monthly Labor Review* for a description of coding procedures.

[11] Frazis and Stewart, "Where does the time go?"; Michael Horrigan and Diane Herz, "Planning, designing, and executing the BLS American Time-Use Survey," *Monthly Labor Review*, October 2004, pp. 3–19.

[12] ATUS distinguishes between "At Work" and "With Job But Absent From Work" for the employed, and between "Looking" and "On Layoff" for the unemployed. It does not distinguish between different reasons for being not in the labor force.

[13] If the respondent reported that the first and last activities of the day are paid work (the first activity begins at 4 a.m. and the last activity ends 4 a.m. the following day) or if the respondent reported more than 4 hours of nonwork activities between the start and stop times, then we assume that the respondent is doing shift work and calculate hours worked using Definition 3 instead.

[14] John P. Robinson and Geoffrey Godbey, *Time for Life: The Surprising Ways Americans Use Their Time*, 2nd edition (State College, PA, Pennsylvania State University Press, 1997).

[15] Daniel Hamermesh, "Shirking or Productive Schmoozing: Wages and the Allocation of Time at Work," *Industrial and Labor Relations Review*, Vol. 43, No. 3, 1990, pp. 121S–133S.

[16] An episode is considered to be a break if it is less than 15 minutes in duration, occurs at the respondent's workplace, and the episodes immediately preceding and immediately following the break are coded as paid work. The two episodes of work that surround the break must also pertain to the same job (either main job or other jobs).

[17] Jacobs, "Measuring Time at Work."

[18] Abraham, Spletzer, and Stewart, "Divergent Trends in Alternative Wage Series."

[19] Robinson and Bostrom, "The Overestimated Workweek?"

[20] Seasonality is not an issue because both hours measures cover an entire year. The ATUS data cover calendar year 2003, while the CPS data approximately cover October 2002 through September 2003.

[21] To determine the expected change in usual hours between the final CPS interview and the ATUS interview, we examined both usual and actual hours in the CPS data between October 2002 and December 2003 (inclusive). To replicate the effect of the 3-month interval between the final CPS interview and the ATUS interview, we examined a sample of individuals who reported hours in CPS interviews 3 months apart. This is possible because households are in the CPS for 4 consecutive months (Months-in-Sample 1 through 4), then out for 8 months, then in for another 4 months (Months-in-Sample 5 through 8), so we can match responses from Month-in-Sample (MIS) 4 to MIS 1 and responses from MIS 8 to MIS 5. We found that, in this matched sample, both usual and actual hours worked declined by about half an hour.

However, we need to account for rotation group effects, the well-known phenomenon that responses to certain questions vary systematically with the length of time that the respondent has been in the survey. (For example, the unemployment rate is higher for respondents in their first month of the CPS than those in their second and subsequent months. See Barbara A. Bailar, "The Effects of Rotation Group Bias on Estimates from Panel Surveys," *Journal of the American Statistical Association*, Vol. 70, No. 349, 1975, pp. 23–30.) We estimate that the average difference in both usual and actual hours between MIS 1 and MIS 4, and between MIS 5 and MIS 8, within the same survey month is about half an hour—virtually identical to the observed decline in the matched sample. Thus, after adjusting for rotation group effects, the expected change in hours between CPS and ATUS is essentially zero.

[22] One partial explanation for the change in usual hours is that CPS accepts proxy responses (responses from someone else in the household), whereas ATUS is strictly self-response. Persons whose CPS response was by proxy show a slightly greater increase in reported usual hours worked than do CPS self-responders.

[23] This restriction also helps control for differences between CPS and ATUS in the reporting of other variables that might affect estimates of hours worked. For example, this restriction controls for the difference in multiple jobholding rates that was noted in footnote 3.

This restriction to respondents whose usual hours changed by fewer than 5 hours resulted in a 38-percent drop in the sample from 10,036 observations to 6,268. This drop was larger than expected, which led to further investigation. Several patterns emerged, although the decline was large for all groups. The sample restriction was more likely to exclude men and individuals whose MIS 8 CPS response was given by a proxy. Compared with individuals whose usual hours were in the 35-44 hour range in the MIS 8 CPS interview, part-time workers and those who usually worked 45 or more hours were more likely to be excluded. The greater the length of time between the final CPS interview and the ATUS interview the more likely it was that the observation was excluded. Finally, people who reported having more than one job in ATUS, but not in CPS, were more likely to be excluded.

[24] Robinson and Bostrom, "The Overestimated Workweek?"

[25] See three recent studies: Steve G. Allen, "Technology and Wage Structure," *Journal of Labor Economics*, Vol. 19, No. 2, 2001, pp. 440–83; John W. Budd and In-Gang Na, "The Union Membership Wage Premium for Employees Covered by Collective Bargaining Agreements," *Journal of Labor Economics*, Vol. 18, No. 4, 2000, pp. 783–807; and Harley Frazis and Jay Stewart, "Tracking the Returns to Education in the Nineties: Bridging the Gap Between the New and Old CPS Education Items," *Journal of Human Resources*, Vol. 34, No. 3, pp. 629–41.

[26] In constructing hours measures for productivity estimates, BLS uses, where possible, information on the ratio of hours worked to hours paid from other BLS surveys to adjust CES hours paid data.

Occupational injury and illness: new recordkeeping requirements

Changes to OSHA recordkeeping rules in 2002 resulted in new BLS data; comparing the old and new data series is challenging

William J. Wiatrowski

In 2002, the Occupational Safety and Health Administration (OSHA) implemented a number of changes in the definitions of injury and illness cases recorded by employers. The new definitions in turn resulted in changes in occupational injury and illness statistics provided by the Bureau of Labor Statistics (BLS). As an example, in one change, the old definition considered the application of a butterfly bandage to be medical treatment and a recordable case; the new definition considers such treatment to be first aid and not recordable. Using the new definitions, the BLS reported that there were 4.7 million nonfatal injuries and illnesses in private-industry workplaces in 2002, resulting in a rate of 5.3 cases per 100 equivalent full-time workers.[1] While these data follow the trend of declining cases and rates seen throughout the past decade, because of the change in definition they cannot be compared with data from prior years.

When the first data from 2002 were released in late 2003, the BLS cautioned readers of the differences between the 2002 data and data from previous years and discouraged year-to-year comparisons. Because employers were following the new rules when recording cases throughout 2002, there was no way that two sets of data (one maintained under the old rules, the other under the new rules) could be captured. Nonetheless, data users are interested in the relationship of 2002 data to data from past years. For example, among the questions they might want answered are, Did the 10-year trend of reduced injuries and illnesses continue in 2002? and What effect did the change in recordkeeping rules have on the data?

This article provides background on the BLS survey and the change in the recordkeeping rule. Both 2002 data and data from earlier years are examined to determine what patterns might be uncovered. While it will never be possible to identify the rate of change in injuries and illnesses from 2001 to 2002, it may be possible to identify some patterns between the old and new data. These patterns may provide insight into how the change in recordkeeping affected estimates of occupational injuries and illnesses. With only 1 year of data under the new recordkeeping requirements, compared with 30 years under the old system, this analysis should be thought of as an initial attempt to identify patterns and trends. As more years of data collected under the new rules become available, patterns and trends are likely to become clearer.

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Background

For more than 30 years, the BLS has been reporting on the number and rate of workplace injuries and illnesses, an activity that was mandated with the passage, in 1970, of the Occupational Safety and Health Act, according to which

> the Secretary [of Labor] shall compile accurate statistics on work injuries and illnesses which shall include all disabling, serious, or significant injuries and illnesses, whether or not involving loss of time from work, other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.[2]

BLS injury and illness data are collected strictly for statistical reporting purposes and undergo the confidentiality and data security screening that apply to all of the Agency's programs. These data collection and reporting activities are independent of the regulatory and inspection activities of OSHA. The two agencies and their activities are linked in many ways, however, including the definitions they

use to identify injury and illness "cases"—that is, what counts as an occupational injury or illness.

Employers covered under the Occupational Safety and Health Act are required to maintain records of injuries and illnesses that meet OSHA definitions. This requirement is known as the "recordkeeping rule." Certain employers are required to maintain a recordkeeping log of injury and illness cases and, upon request, must make that log available to OSHA inspectors and supply the data contained in the log to the BLS. Other employers must maintain such a log only when they are selected to be part of the BLS survey. In either case, the data the BLS gathers meet the most recent definitions as specified in the OSHA recordkeeping rule. When the rule changes, BLS data change.[3]

The following introductory paragraph from the *Federal Register* notice regarding the change in recordkeeping provides the rationale for the change:

> The Occupational Safety and Health Administration (OSHA) is revising its rule addressing the recording and reporting of occupational injuries and illnesses (29 CFR, parts 1904 and 1952), including the forms employers use to record those injuries and illnesses. The revisions to the final rule will produce more useful injury and illness records, collect better information about the incidence of occupational injuries and illnesses on a national basis, promote improved employee awareness and involvement in the recording and reporting of job related injuries and illnesses, simplify the injury and illness recordkeeping system for employers, and permit increased use of computers and telecommunications technology for OSHA recordkeeping purposes.[4]

The 2002 recordkeeping rule included many changes. For example, under the old rule, recurrences of injuries or illnesses after a 30-day period were recorded as separate cases. Under the new rule, a time frame is no longer specified. Accordingly, employers may now consider recurrences that are not brought on by a new event or exposure in the workplace to be the same case. In another example, the old rule considered the application of a butterfly bandage to be medical treatment and a recordable case; by contrast, the new rule considers such treatment to be first aid and not recordable. Intuitively, these two changes are likely to result in a decline in the number of recordable cases, but that is not the case for all the recordkeeping changes. For example, under the old rules, needle sticks were recorded only if they resulted in medical treatment; now needle sticks are recorded if there is the potential to be contaminated with another person's blood, regardless of whether the affected person is or is not treated.

In its annual reports on occupational injuries and illnesses, the BLS has monitored the trend in injury and illness counts and rates. Both the actual number of cases and the rate of occupational injuries and illnesses generally have been declining over the past decade.[5] (See chart 1 and table 1.) The wide variety of changes to the recordkeeping rule made it impossible for the BLS to compare the 2002 data with data from previous years.

Survey of Occupational Injuries and Illnesses

Participation in the BLS Survey of Occupational Injuries and Illnesses is mandatory; indeed, the survey is the only Federally mandated one conducted by the BLS.[6] The survey covers private-sector employers, regardless of the number of workers, with a few exceptions.[7] Data also are available for State and local government workers in a number of States. Each year, the BLS selects a sample of employers covered under OSHA regulations, including those which must maintain a log of workplace injuries and illnesses under the OSHA rules and those which do not have such requirements, typically because of their small employment. At the end of the year prior to which data are to be recorded, all sampled establishments are notified of their selection for the survey and are provided instructions for maintaining injury and illness records. A year later, these establishments are contacted again and are asked to provide the BLS with data from the records they maintained over the past year. Among the data to be provided are information on employment and hours, a summary of the number of recordable cases, and detailed characteristics of cases that involve days away from work.

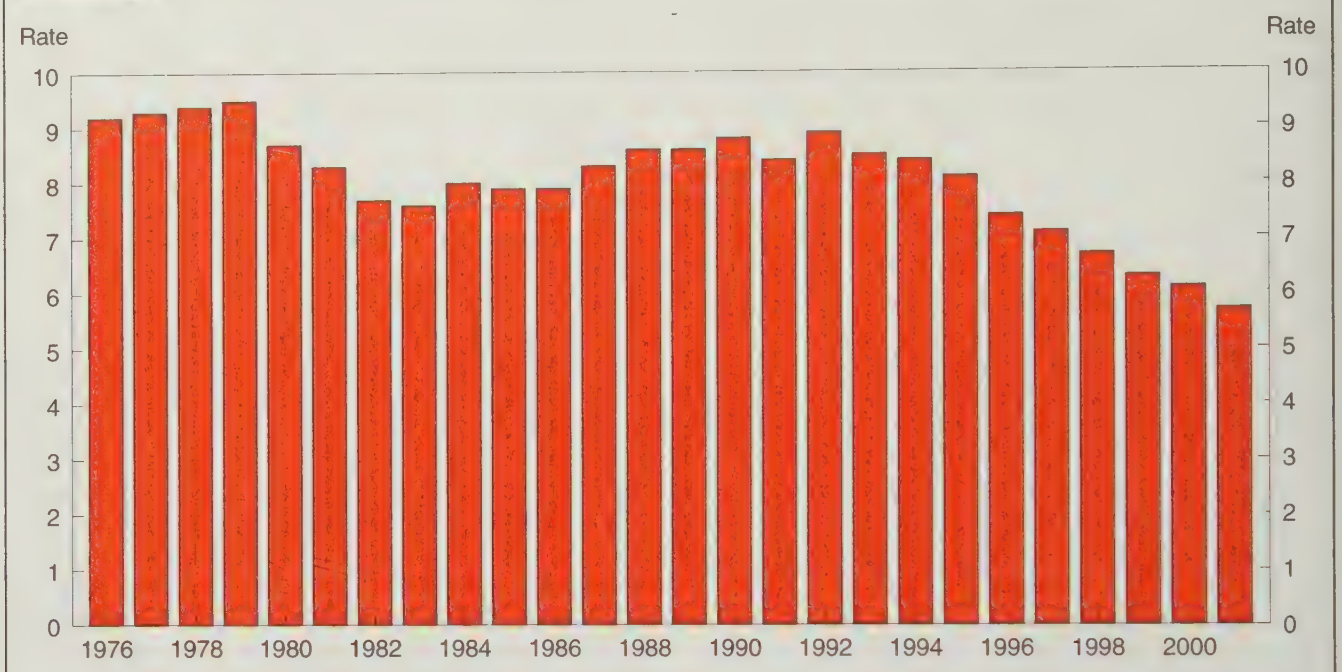
The BLS publishes two sets of national and State data based on information provided by employers.[8] The first release of data contains summary estimates of the number and rate of injuries and illnesses by industry, with some details provided on the type of case, such as that resulting in a job transfer or restricted work activity. The second release contains details on the demographics of the injured or ill worker and the circumstances surrounding the case. This detailed information is available only for those cases which involve days away from work—one of the types of cases recorded by employers.

Table 1. Number of occupational injuries and illnesses, private industry, 1992–2001

[In millions]

Year	Number of occupational injuries and illnesses	Number of occupational injuries	Injuries as a percent of total
1992	6.7994	6.3420	93.3
1993	6.7374	6.2553	92.8
1994	6.7669	6.2522	92.4
1995	6.5754	6.0806	92.5
1996	6.2389	5.7999	93.0
1997	6.1456	5.7158	93.0
1998	5.9228	5.5309	93.4
1999	5.7072	5.3350	93.5
2000	5.6501	5.2876	93.6
2001	5.2156	4.8818	93.6

Chart 1. Incidence[1] of occupational injuries and illnesses, private industry, 1976–2001



[1] The incidence is the number of injuries and illnesses per 100 full-time workers.

The survey began in 1971 and has produced annual data since 1972, with a major revision in 1992. That revision resulted in the inauguration of a separate program to track workplace fatalities: the Census of Fatal Occupational Injuries.[9] The revision also introduced the current survey output of detailed characteristics of cases involving days away from work. Prior to that time, there was no comprehensive nationwide study of the details of injury and illness cases. Instead, a number of special studies were conducted that explored certain industries or certain types of injuries.[10]

The two Federal agencies

The BLS and the OSHA play very different roles with regard to worker safety, as indicated in the mission statement of each agency:

> The Bureau of Labor Statistics (BLS) is the principal fact-finding agency for the Federal Government in the broad field of labor economics and statistics. . .BLS data must satisfy a number of criteria, including relevance to current social and economic issues, timeliness in reflecting today's rapidly changing economic conditions, accuracy and consistently high statistical quality, and impartiality in both subject matter and presentation.[11]

> OSHA's mission is to assure the safety and health of America's workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health.[12]

The BLS is a nonpartisan statistical organization that provides data on a wide range of labor-related issues, including occupational safety and health. The agency does not have any regulatory or enforcement functions.

OSHA uses BLS data in setting standards and identifying areas of emphasis for inspection. The rate of injuries and illnesses in a specific industry, as published by the BLS, is used as a standard for targeting reductions in workplace injuries and as a benchmark for individual employers. For example, OSHA has as one of its goals to "reduce the rate of lost workday injuries and illnesses by at least 5 percent annually."[13] Whether this goal has been met is determined with the use of BLS data. In addition, OSHA has established a number of cooperative programs to work with businesses and other organizations. Among these programs are the OSHA Voluntary Protection Programs, which use BLS data as a benchmark that participating employers must meet to be eligible for certain safe-worksite designations.[14]

BLS data

While the BLS has captured and reported on occupational injuries and illnesses since the early years of the 20th century, there were few standards in place regarding the reporting of occu-pational injury and illness data prior to the Occupational Safety and Health Act of 1970. The current BLS data series began soon after the Act was passed. Early revisions to the program reflected changes in industrial classifications and OSHA recordkeeping rules. The BLS survey was completely redesigned in 1992, the result of a detailed analysis of the existing program by the National Academy of Sciences.[15] The redesign resulted in the separate collection of fatalities[16] and the collection of detailed case characteristics. Despite these changes, the BLS has been able to produce a largely consistent data series showing the number of cases and the rate of occupational injuries and illnesses. That series ended with the 2001 data, although the rate of 5.3 injuries and illnesses per 100 full-time workers in 2002 is consistent with the trend seen in previous years.

But the inability to track total cases and incidence rates before and after the recordkeeping change does not mean that certain patterns in the injury and illness data cannot be explored. Patterns involving the types of cases or events leading to injury, among other characteristics, may provide some indication of the effect the revised recordkeeping rules had on employer reporting. For example, about 6 percent of reported occupational injury and illness cases in 2002 were illnesses, nearly identical to the proportion reported over the previous several years.

Injury and illness cases are divided into two broad categories: cases with days away from work, with a job transfer, or with a job restriction; and other recordable cases. Prior to 2002, cases were identified as either lost-workday cases or cases without lost workdays. Despite the change in case classification and definition, the division of cases between the two broad categories is generally consistent from 2000 to 2002, with about half of the cases falling into each of the categories. (In both 2000 and 2001, 49 percent of all cases were lost-workday cases, while in 2002, 53 percent of all cases were cases with days away from work, with a job transfer, or with a job restriction.)

In the past, data were recorded in such a way that information by type of case could be produced for injuries and illnesses combined or for each of those categories separately. The 2002 recordkeeping change eliminates the ability to produce separate case-type data either just for injuries or just for illnesses.

Industry data

Among most major industry groups, the number of cases involving days away from work exceeds the number involving a job transfer or job restriction, with the notable exception of manufacturing. In manufacturing in 2002, about 25 percent of cases involve days away from work, while 32 percent involve a job transfer or job restriction. (The remaining cases generally involve medical treatment, but do not result in any time off, restricted duty, or transfer.) This difference specific to manufacturing continues a trend seen for the past several years, even before the change in recordkeeping rules. (See table 2.)

In 2002, there were six industries[17] that recorded 100,000 or more cases of occupational injuries. This figure compares with nine such industries in 2000 and eight in 2001. (See table 3.) The lists of industries in each of the 3 years are similar. Indeed, the six industries with the greatest number of injuries were the same for the last 3 years, although not in the same order. Hospitals became the industry with the greatest number of injuries in 2002, surpassing eating and drinking places, which had been the industry with the highest count nearly every year since the BLS began presenting data in this way in the late 1980s. Among the six industries listed, there were variations in the numbers of cases between 2001 and 2002 that could be the result of recordkeeping changes. For example, hospitals may report more cases due to changes in reporting requirements related to needle sticks. Of course, the many recordkeeping changes may have affected specific industries in a variety of, and perhaps offsetting, ways.

As noted, illnesses as a proportion of total cases remained constant from 2001 to 2002, but the proportion in manufacturing dropped from 54 percent of all illness cases in 2001 to 44 percent in 2002. This change may be due to the recordkeeping changes that altered the types of illnesses reported. Prior to these changes, there were six specific types of illnesses, plus a category for "all other illnesses." In 2002 and beyond, there are three categories, plus "all other illnesses."[18] (See chart 2.) With the elimination of a separate category for disorders associated with repeated trauma, the proportion of cases recorded as "all other illnesses" became the predominant type of illness.[19]

Shifts in employment and in hours worked in certain industries may influence the data on occupational injuries and illnesses. For example, hospitals had the greatest number of cases in 2002, surpassing eating and drinking places for the first time. The injury and illness rate in hospitals also was higher in 2002 than in 2001, but did not increase as much as the number of cases. This reversal suggests that the increase in injuries and illnesses in hospitals was not strictly a function of changes in employment. The opposite may be true with the change in the proportion of illnesses in manufacturing: manufacturing employment and hours worked declined between 2001 and 2002, which may have affected the proportion of illness cases in the industry.

Cases involving days away from work

Detailed case and demographic data are available only for those cases involving days away from work. Once again, the definition of a case differed from 2001 to 2002, as did the method used to

Table 2. Incidence[1] of occupational injuries and illnesses by industry and type of case, private industry, 2000–02

Industry and type of case	2000	2001	2002
Total	6.1	5.7	5.3
Cases with days away from work[2]	1.8	1.7	1.6
Cases with restriction[3]	1.2	1.1	1.2
Agriculture, forestry, and fishing			
Total	7.1	7.3	6.4
Cases with days away from work[2]	2.5	2.7	2.1
Cases with restriction[3]	1.1	.9	1.2
Mining			
Total	4.7	4.0	4.0
Cases with days away from work[2]	2.4	1.8	2.0
Cases with restriction[3]	.6	.6	.7
Construction			
Total	8.3	7.9	7.1
Cases with days away from work[1]	3.2	3.0	2.8
Cases with restriction[2]	.9	.9	1.1
Manufacturing			
Total	9.0	8.1	7.2
Cases with days away from work[2]	2.0	1.8	1.7
Cases with restriction[3]	2.5	2.2	2.3
Transportation and public utilities			
Total	6.9	6.9	6.1
Cases with days away from work[2]	3.1	3.0	2.7
Cases with restriction[3]	1.1	1.3	1.3
Wholesale and retail trade			
Total	5.9	5.6	5.3
Cases with days away from work[2]	1.7	1.6	1.6
Cases with restriction[3]	1.0	1.0	1.1
Finance, insurance, and real estate			
Total	1.9	1.8	1.7
Cases with days away from work[2]	.6	.6	.5
Cases with restriction[3]	.2	.2	.2
Services			
Total	4.9	4.6	4.6
Cases with days away from work[2]	1.4	1.3	1.3
Cases with restriction[3]	.9	.8	.9

[1] The incidence of injuries and illnesses represents the number of injuries and illnesses per 100 full-time workers and is calculated by multiplying the number of injuries and illnesses by the total hours worked by all employees during the calendar year. The result of this calculation is then divided by 200,000 (100 workers, times 40 hours per week, times 50 weeks per year) to determine the incidence.

[2] In 2000 and 2001, includes cases involving days away from work with or without restricted work activity. In 2002, includes cases involving days away from work with or without job transfer or restriction.

[3] In 2000 and 2001, defined as cases with restricted work activity. In 2002, defined as cases with job transfer or restriction.

count the number of days away from work. Prior to 2002, days were counted as workdays away from work. In 2002 and subsequent years, the count is *calendar* days away from work.

For those cases with days away from work, demographic characteristics that are captured by the survey include sex, age, occupation, and other items. Characteristics of the injury or illness case include the nature of the injury or illness, the part of the body involved, the event that led to the injury or illness, and the source of the event. For example, an injury case with days away from work involving a nurse who sprained her back while lifting a patient would have the following characteristics:

- Nature of disabling condition: sprain
- Part of body affected: back
- Event or exposure: lifting
- Source directly producing disability: patient

In addition, these characteristics can be used to construct a count of musculoskeletal disorders, which are defined as injuries or disorders of the muscles, nerves, tendons, joints, cartilage, or spinal discs. Musculoskeletal disorders are determined by the nature of the condition and the event or exposure leading to that condition.[20]

Both the rate and the number of injury and illness cases involving days away from work under the previous recordkeeping definition have been declining steadily since the data were first collected in 1992. (See charts 3 and 4.) The data for 2002—1.4 million injury and illness cases involving at least 1 day away from work and a rate of 1.6 cases per 100 equivalent full-time workers—are consistent with the declining numbers over the previous decade. Moreover, the distribution of these cases by sex follows the same pattern as in the past: in 2002, 65 percent of cases involving at least 1 day away from work affected men, a number nearly identical to that for the previous 2 years. Furthermore, as in the past, men had a greater proportion of injuries and illnesses than their proportion of hours worked. The distribution of cases by age also was consistent between 2002 and prior years, with about three-quarters of the cases occurring among those aged 25–54 years. (See table 4.)

The occupation with the greatest number of injuries and illnesses involving days away from work in 2002 was truckdrivers, as it has been since 1993.[21] As table 5 indicates, many of the occupations with the highest number of cases were the same in 2002 as they were in the 2 previous years, although there were changes in the order. Two occupations are among the list of the 10 occupations with the greatest numbers of injuries and illnesses for the first time in 2002: supervisors of sales workers and other sales workers (those not in a specific sales occupation, such as auto sales or apparel sales). The greater prevalence of injuries and illnesses among these sales occupations may be due to the recordkeeping change. For example, as of 2002, incidents that occur on work property before or after work, such as assaults or falls in a parking lot, are recordable cases.[22] Conversely, two occupations previously among the top 10, but which fell just below that threshold in 2002, are cashiers and stock handlers. Workers in these occupations often suffer repetitive-motion injuries. The change in the recordkeeping requirement that eliminates the repeat recording of cases that recur after 30 days may have led to a decline in cases in these occupations.

The characteristics of injuries and illnesses incurred in 2002 were nearly identical to those from 2001. The most prevalent kind of injury was a sprain or strain, affecting 43 percent of all cases.

Table 3. Number of cases of nonfatal occupational injuries for industries with 100,000 or more cases, 2000–02

Industry	2000	2001	2002
Hospitals	259.5	265.7	296.1
Eating and drinking places	285.3	283.7	247.5
Nursing and personal care facilities	199.0	192.9	180.4
Grocery stores	180.1	175.1	154.5
Department stores	150.7	143.3	138.9
Trucking and courier services, except air	129.1	134.9	104.0
Air transportation, scheduled	127.2	116.3	–
Motor vehicles and equipment	124.6	102.7	–
Hotels and motels	101.0	–	–

NOTE: Industries are based on three-digit Standard Industrial Classification codes and are in order by the number of cases in 2002. Dash indicates industry did not have 100,000 or more cases in year shown.

Body parts affected most frequently were the trunk (specifically, the back), followed by both the upper and lower extremities. Sources of injuries and illnesses were widespread, with the most prevalent involving floors, walkways, and ground surfaces; containers; and worker motion or position. Finally, the two events that were cited most often as leading to injury or illness were contacts with objects and equipment (such as being struck by an object) and overexertion (often due to lifting).

The number of assaults and violent acts, and their percentage of all events, was slightly greater in 2002 than in 2001, a result that may be due to the recording of events which occur prior to and after work on employer property, such as incidents in parking lots. (Looking beyond work-related incidents, overall rates of violent crime dropped from 2001 to 2002, as did robbery and assault rates.[23]) By contrast, repetitive-motion events and their proportion of all events were down slightly, due perhaps to the lack of a specific category to capture disorders associated with repeated trauma or to the change in rules for recording repeated occurrences of an injury or illness. Musculoskeletal disorders continue to account for about 1 in 3 injury and illness cases involving days away from work, as they have consistently over the past decade. (See chart 5.)

Median days

One of the changes in the OSHA recordkeeping requirements was the way in which employers were to count the number of

Chart 2. Percent distribution of occupational illnesses by type, private industry, 2001–02

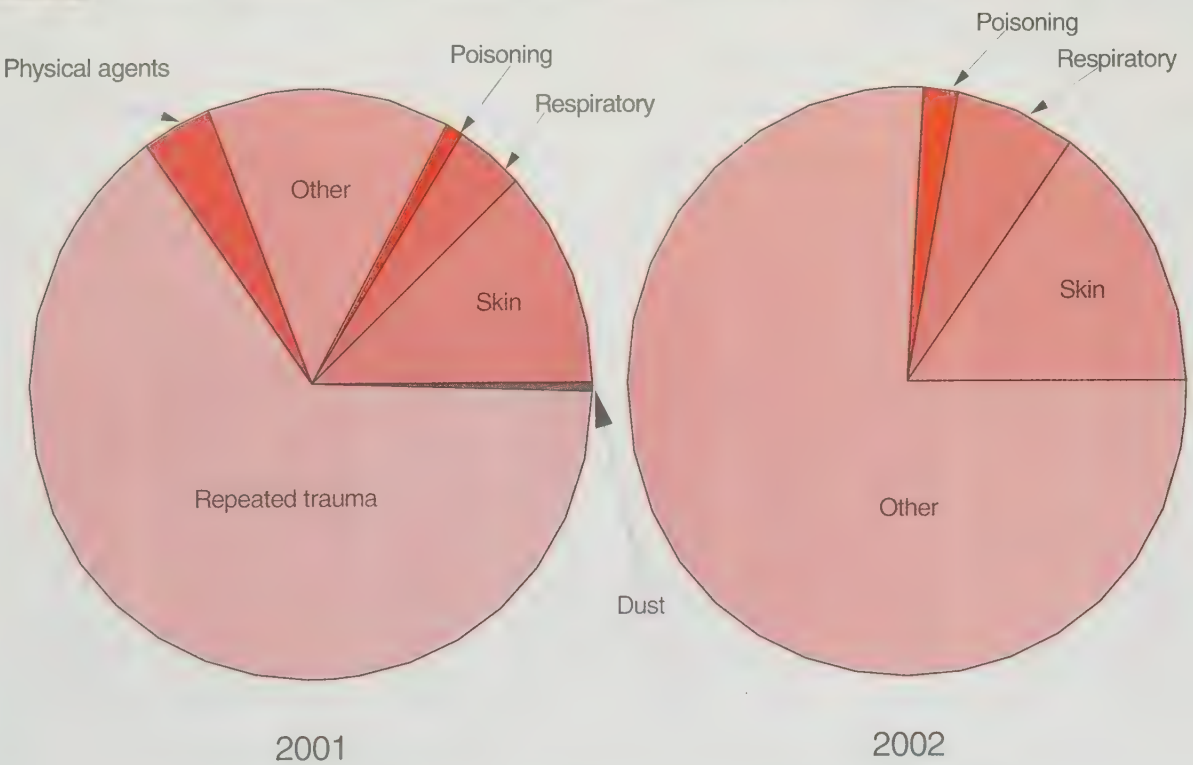
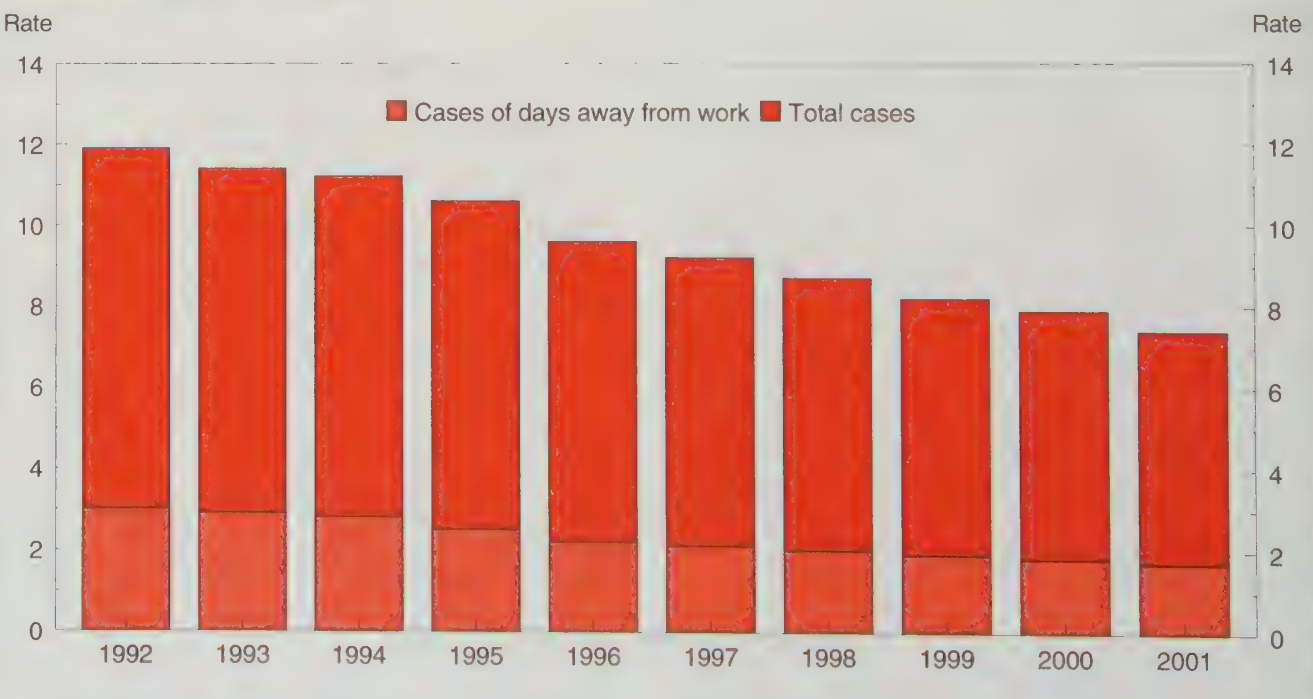


Chart 3. Number of occupational injuries and illnesses by selected types of cases, private industry, 1992–2001

Chart 4. Incidence[1] of occupational injuries and illnesses by selected types of cases, private industry, 1992–2001



[1] The incidence is the number of injuries and illnesses per 100 full-time workers.

Table 4. Percent distribution of occupational injuries and illnesses involving days away from work, by selected demographic characteristics, 2001 and 2002

Characteristic	2001	2002
Total	100.0	100.0
Men	65.7	64.8
Women	33.6	34.9
Age, years		
14–15	.1	(1)
16–19	2.9	2.7
20–24	11.2	11.1
25–34	25.3	25.0
35–44	28.5	27.9
45–54	20.5	21.2
55–64	8.8	10.0
65 and older	1.6	1.7

[1] Less than 0.1 percent.

days away from work. Previously, the count pertained to workdays. Beginning in 2002, the count applies to calendar days, a change intended to "ensure that a measure of the length of disability is available, regardless of the employee's work schedule."[24] This modification may have the effect of increasing the median number of days away from work recorded by the survey. For example, in the past, if an injury occurred on a Wednesday and the employee did not return to work until the following Tuesday, the employer would count 3 days away from work (Thursday, Friday, and Monday, assuming a standard 5-day workweek). Under the new guidelines, the employer would count 5 days (Thursday through Monday). This change may especially affect those individuals or occupations which do not work a standard workweek. For example, those aged 14 or 15 years may work only a few days per week, perhaps after school or on weekends. In 2000 and 2001, such workers who suffered an injury or illness that required time off from work had a median of 2 days away from work. In 2002, that median was 7 days, perhaps reflecting the count of calendar days between their times at work.

A closer look at occupations that are typically thought of as having irregular work hours or a large proportion of part-time workers shows that the change in recordkeeping rules regarding how days are counted may have affected different occupations in different ways. For example, waiters and waitresses who incurred injuries or illnesses involving days away from work were off the job for a median of 5 days in 2002, compared with 7 days in 2001. Cashiers, also a job with a large share of part-time workers, saw their median days away from work remain at 6 days from 2001 to 2002. These two examples suggest that other recordkeeping changes, aside from the method of counting days, are influencing the results.

Overall, the median number of days away from work was 7 in 2002. Between 1995 and 2001, the median was always 5 or 6 days. Chart 6 shows how the percent distribution of days has changed, with the proportion at 31 days or more a few percentage points higher than in the past. Again, this effect may be the result of the change in recordkeeping rules.

The distribution of days away from work for truckdrivers and registered nurses provides an example of how the data have changed. The median number of days away from work for truckdrivers rose from 10 in 2001 to 13 in 2002. For registered nurses, the median rose from 4 days to 6 days, and those with a median number of days away from work greater than 10 rose from 30 percent to nearly 40 percent of all cases.

For injuries and illnesses requiring time off from work, the median number of days away from work increased between 2001 and 2002 for injuries and illnesses with a variety of characteristics. For example, cases of carpal tunnel syndrome led to a median 25 days away from work in 2001 and 30 days in 2002. Similarly, amputations led to a median 18 days away from work in 2001, compared with 26 days in 2002. In contrast, certain prevalent events leading to injuries or illnesses showed only slight increases in median days away from work: overexertion in lifting led to a median 8 days away from work in 2002, compared with 7 in 2001; and being struck by an object led to a median 5 days away from work in 2002, compared with 4 in 2001. The 1-day increase in these more frequently occurring events reflects the overall 1-day increase in the median for all cases with days away from work. Finally, the data on musculoskeletal disorders show a slight increase in the median number of days away from work, from 8 days in 2001 to 9 in 2002.

To compare or not to compare

The BLS has stated that the change in occupational injury and

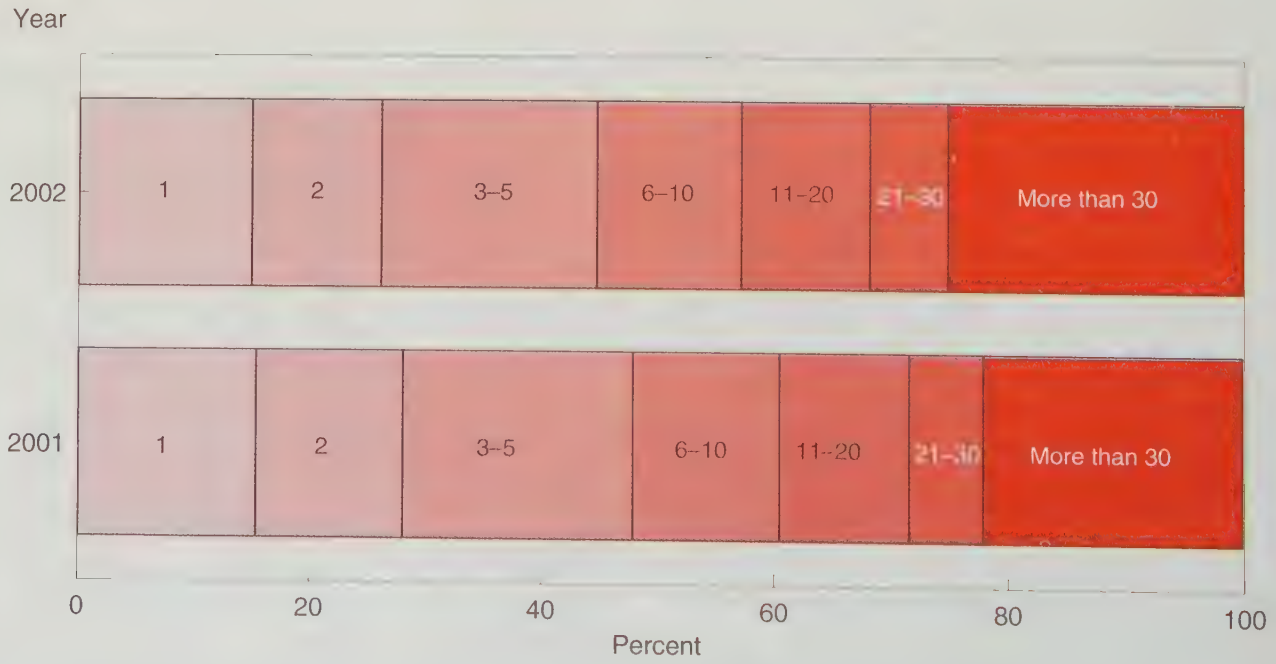
Table 5. Occupations with the highest number of injury and illness cases involving days away from work, 2000–02

Occupation	Number of cases (in thousands)		
	2000	2001	2002
Truckdrivers	136.1	129.1	112.2
Nursing aides, orderlies, and attendants	74.2	71.0	79.0
Laborers, non-construction	87.0	68.9	76.6
Janitors and cleaners	40.7	38.6	42.0
Construction laborers	45.4	44.1	41.9
Assemblers	38.9	31.1	34.4
Carpenters	38.3	32.7	28.3
Supervisors and proprietors, sales	24.1	23.1	26.1
Cooks	27.8	27.8	24.7
Sales workers, other commodities	24.1	22.2	24.7
Cashiers	26.9	22.2	22.5
Registered nurses	24.5	24.7	21.9
Stock handlers and baggers	23.8	25.7	21.5

NOTE: Occupations are in order by the number of cases in 2002.

Chart 5. Number of occupational injuries and illnesses involving days away from work and those resulting in musculoskeletal disorders, private industry, 1992–2001

Chart 6. Percent distribution of days away from work, private industry, 2001 and 2002



illness recordkeeping requirements in 2002 resulted in a discontinuity in the data series and that comparisons with previous years should not be made. Nonetheless, data users are eager to track trends and to determine the effect of the recordkeeping changes. This article was written to provide some guidance for those users. Tracking trends will be difficult, because determining the exact effect of the recordkeeping changes is not possible. But with some careful analysis and some caveats, data users may be able to identify patterns. Specifically, users who are comparing the data for multiple years should keep the following suggestions in mind:

- Consider proportions, as well as counts.
- Consider multiple perspectives on the same data, such as industry and occupation.
- Consider specific recordkeeping changes and how they might have affected the particular industry, occupation, worker, or injury/illness.
- Consider the *combination* of recordkeeping changes; some modifications may counteract others.
- Look for a continuation of long-run trends—patterns that developed for several years prior to and through 2001.
- Look for future trends as additional years of data become available.

The BLS Survey of Occupational Injuries and Illnesses will continue to report annually on the number and rate of incidents by type of case and industry, with detailed information on the characteristics of the workers and the incidents for cases involving days away from work.[25] As more years of data under the new recordkeeping requirements are accumulated, effects of the recordkeeping changes and trends may become more apparent. □

Notes

[1] See "Workplace Injuries and Illnesses in 2002," U.S. Department of Labor news release 03–913, Dec. 18, 2003. Injury and illness rates represent the number of injuries and illnesses per 100 full-time workers and are calculated by multiplying the number of injuries and illnesses by the total hours worked by all employees during the calendar year. This result is then divided by 200,000 (100 workers, times 40 hours per week, times 50 weeks per year) to determine the rate per 100 equivalent full-time workers.

[2] Occupational Safety and Health Act of 1970, Public Law 91–596, section 24.

[3] While the law does not actually specify that BLS data conform to the OSHA recordkeeping requirements, such a procedure allows for the efficient collection of data that in many cases are already being maintained by employers. In addition, by keeping the definitions consistent with OSHA requirements, the BLS guarantees that its data can be used by OSHA to monitor employers' progress in improving occupational safety and health.

[4] *Federal Register*, Jan. 19, 2001, p. 5916.

[5] Changes to the program prior to 2002, including a major revision in 1992, affected the type and amount of data available, but did not change the basic definition of recordable cases of injuries and illnesses. Thus, data on the number and rate of occupational injuries and illnesses are consistent from 1972 through 2001.

[6] The BLS produces measures of employment, unemployment, compensation, price change, and productivity, among other things. Participation in some of these data collection efforts is mandatory in certain States, while participation in the Survey of Occupational Injuries and Illnesses is mandated by the Federal Occupational Safety and Health Act of 1970.

[7] The BLS Survey of Occupational Injuries and Illnesses is designed to cover *all* private-industry employers, not just those required by the Occupational Safety and Health Administration to maintain records. Farms with fewer than 11 workers are excluded. Data on railroads and on metal and nonmetal mining are not collected directly by the survey. Rather, they are provided to the BLS by the Federal Railway Administration and the Mine Safety and Health Administration, respectively.

[8] The BLS occupational safety and health statistics programs are conducted in cooperation with the States, which jointly fund the programs. Those States participating in the survey—42 in 2002—together with the District of Columbia and three U.S. territories, collect sufficient data to produce State estimates. No State data on occupational injuries and illnesses are available for nonparticipating States.

[9] The Census of Fatal Occupational Injuries uses multiple source documents to identify and verify work-related fatalities. Data published annually include demographic details, as well as information on the circumstances surrounding the fatality and on the occupation, industry, and geographic location of the worker. (See "National Census of Fatal Occupational Injuries in 2003," U.S. Department of Labor news release 04–1830, Sept. 22, 2004. Additional data on occupational fatalities are available on the Internet at **http://www.bls.gov/iif/home.htm**, visited Sept. 30, 2004.)

[10] For example, earlier BLS studies known as Work Injury Reports used data captured from injured workers to identify the circumstances surrounding specific types of injuries, such as falls from ladders or scaffolds. Another program, the Supplementary Data System, compiled case and demographic data from workers' compensation reports in about 30 States.

[11] The BLS mission statement is taken from the BLS Internet site, **http://www.bls.gov/bls/blsmissn.htm**, visited Aug. 19, 2004.

[12] The OSHA mission statement is taken from the OSHA Internet site, **http://www.osha.gov**, visited Aug. 19, 2004.

[13] See **http://www.osha.gov/StratPlanPublic/factsheet.pdf**, visited Aug. 19, 2004.

[14] See **http://www.osha.gov/dcsp/vpp/index.html**, visited Aug. 19, 2004.

[15] *Counting Injuries and Illnesses in the Workplace: Proposals for a Better System* (Washington, DC, National Academy Press, 1987). (See also Katharine G. Abraham, William L. Weber, and Martin E. Personick, "Improvements in the BLS health and safety statistical system," *Monthly Labor Review*, April 1996, pp. 3–12.)

[16] The redesign ended the practice of reporting workplace fatalities collected in the Survey of Occupational Injuries and Illnesses. Because fatalities are rare events, collecting information on them through a sample survey did not provide reliable data. In place of the previous survey, the Census of Fatal Occupational Injuries was introduced to capture workplace fatalities.

[17] Industry data are based on the three-digit Standard Industrial Classification code.

[18] For 2004 and beyond, a fourth specific illness category—hearing loss—was added to the recordkeeping requirement.

[19] Despite the elimination of the specific illness category for disorders associated with repeated trauma, the BLS Survey of Occupational Injuries and Illnesses continues to provide some amount of data on similar conditions. For cases that involve days away from work, the survey records repetitive-motion injuries and illnesses, as well as musculoskeletal disorders.

[20] Work-related musculoskeletal disorders include cases in which the nature of the injury or illness is sprains, strains, tears; back pain, hurt back; soreness, pain, hurt, except the back; carpal tunnel syndrome; hernia; or musculoskeletal system and connective tissue diseases and disorders when the event or exposure leading to the injury or illness is bodily reaction/bending, climbing, crawling, reaching, twisting; overexertion; or repetition. Cases of Raynaud's phenomenon, tarsal tunnel syndrome, and herniated spinal discs are not included: although these cases may be considered musculoskeletal disorders, the survey classifies them into categories that also include cases that do not involve musculoskeletal disorders.

[21] In 1992, the first year that detailed occupation data were collected, nonconstruction laborers were the occupation with the greatest number of injuries and illnesses involving days away from work, with truckdrivers second. Since 1993, truckdrivers have had the greatest number of cases involving days away from work each year.

[22] Prior to 2002, incidents in parking lots and recreation facilities were presumed not to be work related. Under the new rules, only motor vehicle accidents in parking lots are presumed not to be work related.

[23] Information on overall crime statistics are from the U.S. Department of Justice, Bureau of Justice Statistics. (See **http://www.ojp.usdoj.gov/bjs/glance/viort.htm**, visited Oct. 14, 2004.

[24] *Federal Register*, Jan. 19, 2001, p. 5969.

[25] Beginning with data for 2003, the survey will use the North American Industry Classification System to classify industries and the Standard Occupational Classification System to classify occupations. Prior to 2003, the survey used the Standard Industrial Classification System and the Bureau of the Census Occupational Classification System, respectively. This change will result in another break in series among specific industries and occupations, but not for the overall private-industry data.

APPENDIX: Recordkeeping under the OSHA regulations

Employer recordkeeping requirements

The Occupational Safety and Health Act of 1970 requires the Secretary of Labor to issue regulations requiring employers to maintain accurate records of, and make periodic reports on, work-related deaths, injuries, and illnesses. The Occupational Safety and Health Administration (OSHA) maintains those regulations, known as the employer recordkeeping requirements. Employers not exempt from OSHA's recordkeeping requirements must prepare and maintain records of work-related injuries and illnesses as follows:

- Use the Log of Work-Related Injuries and Illnesses (Form 300) to list injuries and illnesses and to track days away from work, work or motion restrictions, and transfers to another job.
- Use the Injury and Illness Report (Form 301) to record supplementary information about recordable cases. A workers' compensation or insurance form may be used if it contains the same information.
- Use the Summary (Form 300A) to show totals for the year in each category. The Summary is posted from February 1 to April 30 of each year.

Recordkeeping is a critical part of an employer's safety and health efforts for several reasons:

- Keeping track of work-related injuries and illnesses can help prevent them in the future.
- Using injury and illness data helps identify problem areas. The more the employer knows, the better the employer can identify and correct hazardous workplace conditions.
- The employer can better administer company safety and health programs with accurate records.
- As employee awareness about injuries, illnesses, and hazards in the workplace improves, workers are more likely to follow safe work practices and report workplace hazards. OSHA compliance officers can rely on the information thus reported to help them properly identify and focus on particular types of injuries and illnesses. The agency also asks about 80,000 establishments each year to report information directly to OSHA, which uses the information as part of its site-specific inspection-targeting program. The Bureau of Labor Statistics also uses injury and illness records as source data for its Annual Survey of Occupational Injuries and Illnesses, which shows nationwide and industrywide safety and health trends.[1]

Changes to the recordkeeping requirement

Among the changes in the OSHA recordkeeping rule are the following:

- changes in coverage
- changes in the OSHA forms
- changes in the recording criteria for determining the work relationship
- the elimination of different recording criteria for injuries and illnesses

Exhibit A-1 offers a look at the old and new recordkeeping rules. This listing of an employer's obligations under OSHA's recordkeeping rule is not comprehensive. (See 29 CFR Part 1904 and other parts of that instruction for details pertaining to all recordkeeping obligations.)

Changes in types of cases

Exhibit A-1. Changes to OSHA recordkeeping requirement from 2001 to 2002

Old rule, through 2001	New rule, 2002 and beyond
Forms (§1904.29)	
OSHA 200, Log and Summary; OSHA 101, Supplemental Record	OSHA 300, Log; OSHA 300 A: Summary; OSHA 301, Incident Report
Work related (§1904.5)	
Any aggravation of a preexisting condition by a workplace event or exposure makes the case work related. Exceptions to the presumption of a work relationship: 1. Member of the general public 2. Symptoms arising on premises and due totally to outside factors 3. Parking lot/recreational facility	Significant aggravation of a preexisting condition by a workplace event or exposure makes the case work related. Exceptions to the presumption of a work relationship: 1. Member of the general public 2. Symptoms arising on premises and due totally to outside factors 3. Voluntary participation in wellness program 4. Eating, drinking, and preparing one's own food 5. Personal tasks outside working hours 6. Personal grooming, self-medication, self-infliction 7. Motor vehicle accident in parking lot or access road during commute 8. Cold or flu 9. Mental illness, unless the employee voluntarily presents a medical opinion stating that he or she has a mental illness that is work related.
New case (§1904.6)	
New event or exposure; new case 30-day rule for cumulative trauma disorders	Aggravation of a case in which signs or symptoms have not resolved is a continuation of the original case. No such criteria
General recording criteria (§1904.7)	
All work-related illnesses are recordable. Restricted work activity occurs if the employee 1. Cannot work a full shift 2. Cannot perform all of his or her normal job duties, defined as any duty the employee would be expected to perform throughout the calendar year Restricted work activity limited to the day of injury makes the case recordable. Day counts: Count workdays No cap on count	Work-related illnesses are recordable if they meet the general recording criteria. Restricted work activity occurs if the employee 1. Cannot work a full shift 2. Cannot perform all of his or her routine job functions, defined as any duty the employee regularly performs at least once a week Restricted work activity limited to the day of injury does not make the case recordable. Day counts: Count calendar days 180-day cap on count

Exhibit A-1. Continued—changes to OSHA recordkeeping requirement from 2001 to 2002

Old rule, through 2001	New rule, 2002 and beyond
Medical treatment does not include 1. Visits to a medical doctor for observation only 2. Diagnostic procedures 3. First aid	Medical treatment does not include 1. Visits to a medical doctor for observation and counseling only 2. Diagnostic procedures (including the administration of prescription medication for diagnostic purposes) 3. First aid
First-aid list in Bluebook[1] is a list of examples and is not comprehensive.	First-aid list in the regulation is comprehensive. Any other procedure is a medical treatment.
Two doses of a prescription medicine qualifies as medical treatment.	One dose of a prescription medicine qualifies as medical treatment.
Any dosage of over-the-counter medicine qualifies as first aid	An over-the-counter medicine at prescription strength qualifies as medical treatment.
Two or more hot or cold treatments qualifies as medical treatment.	Any number of hot or cold treatments qualifies as first aid.
Drilling a nail qualifies as medical treatment.	Drilling a nail qualifies as first aid.
Applying a butterfly bandage or an adhesive skin closure qualifies as medical treatment.	Applying a butterfly bandage or an adhesive skin closure qualifies as first aid.
Recordable nonminor injuries: 1. Fractures 2. Second- and third-degree burns	Recordable significant diagnosed injuries or illnesses: 1. Fractures 2. Punctured eardrums 3. Cancer 4. A chronic irreversible disease
Specific disorders	
Hearing loss: Federal enforcement for a 25-dB shift in hearing from original baseline	Beginning January 1, 2003, record all work-related cases of hearing loss that meet *both* of the following conditions on the same audiometric test for either ear: 1. The employee has experienced a standard threshold shift *and* 2. The employee's total hearing level is 25 dB or more above audiometric zero (averaged at 2,000, 3,000, and 4,000 Hz) in the same ear(s) affected by the standard threshold shift. Beginning January 1, 2004, a separate hearing-loss column appears on the OSHA 300 Log.
Needle sticks and sharps injuries are recorded only if the case results in medical treatment, days away from work, days of restricted work, or seroconversion.	Needle sticks and sharps injuries that may be contaminated with another person's blood or with infectious material are recorded.
All medical removal[2] procedures that are under the provisions of other OSHA standards are recordable.	All medical removal[2] procedures that are under the provisions of other OSHA standards are recordable.
A positive skin test for tuberculosis is recordable when it is known to be a workplace exposure to active tuberculosis disease. In five industries, the presumption is of a work relationship.	A positive skin test for tuberculosis is recordable when it is known to be a workplace exposure to active tuberculosis disease. There is no presumption of a work relationship in any industry.

Exhibit A-1. Continued—changes to OSHA recordkeeping requirement from 2001 to 2002

Old rule, through 2001	New rule, 2002 and beyond
Other issues	
The employer must enter the employee's name on all cases.	The employer must enter "Privacy Cases," rather than the employee's name, and must keep a separate list of the case number and corresponding names.
Employees have access to the entire log, including names; they do not have access to supplementary form OSHA 101.	Employees and their authorized representatives have access to the entire log, including names. Employees have access to their own Incident Reports (OSHA 301). Authorized representatives have access to a portion of all OSHA 301's.
Employers must report all work-related fatalities to OSHA.	Employers need not report fatalities resulting from motor vehicle accidents on public streets or highways that do not occur in a construction zone.
The employer, or the employee who supervised the preparation of the log and summary, can certify the annual summary.	A company executive must certify the annual summary.
The employer must post the annual summary during the month of February.	The employer must post the annual summary anytime from February 1 to April 30.
Employers need not inform employees regarding how they are to report an injury or illness.	Employers must inform each employee regarding how he or she is to report an injury or illness.

[1] *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (OMB no. 1220–0229).

[2] Medical removal is the required removal of an employee from a work location when certain criteria are met (for example, the amount of lead in the bood reaches a specific level).

SOURCE: U.S. Department of Labor, Occupational Safety and Health Administration; on the Internet at **http://www.osha.gov/recordkeeping/RKside-by-side.html**, visited Sept. 30, 2004.

Exhibit A-2. Designation of types of occupational injury and illness cases under the OSHA recordkeeping rules, 2001 and 2002

2001 and prior years	2002 and future years
Total injury and illness cases	Total injury and illness cases
Lost-workday cases	Cases with days away from work, with a job transfer, or with restricted work activity
Cases with days away from work[1]	Cases with days away from work[2]
Cases with restricted work activity only	Cases with a job transfer or restricted work activity
Cases without lost workdays	Other recordable cases
Total injuries	Total injuries
Lost-workday cases	
Cases with days away from work[1]	
Cases with restricted work activity only	
Cases without lost workdays	
Total illnesses	Total illnesses
Lost-workday cases	
Cases with days away from work[1]	
Cases with restricted work activity only	
Cases without lost workdays	

[1] May include days of restricted work activity, as well as days away from work.

[2] May include days with a job transfer or with restricted work activity, as well as days away from work.

In 2001 and previous years, the type of occupational injury and illness case was recorded separately for total injuries and illnesses, for injuries only, and for illnesses only. This kind of separate calculation resulted in the ability to tabulate detailed case-type information for each of the three categories. Beginning in 2002, case-type data are recorded only once, which limits the amount of detail that can be tabulated. Exhibit A-2 indicates the available data by type of case before and after the recordkeeping change.

Note to the appendix

[1] The source of the preceding information is the Occupational Safety and Health Administration, U.S. Department of Labor. (See the OSHA notice in the *Federal Register*, Jan. 19, 2001, p. 5916; and OSHA Fact Sheet: Highlights of OSHA's Recordkeeping Rule. Links to these documents are available on the Internet at http://www.osha.gov/recordkeeping/index.html, visited Aug. 19, 2004.

Hedonic regression models using in-house and out-of-house data

Two data sources used by the Bureau of Labor Statistics to create hedonic regression models have their own distinct advantages and disadvantages; the Bureau performs research on each data source in an effort to meet its current and ever-evolving future needs

Craig Brown

The research leading up to the publication of this article was conducted under the CPI initiative to expand the scope of developing hedonic regression models for quality adjustment purposes to more items within the CPI market basket. The primary focus of the article is to provide a detailed analysis of the hedonic modeling process and to illustrate the characteristics of two data sources the Bureau of Labor Statistics has chosen to utilize in its ongoing research on hedonic-based quality adjustment methods.

Early research by BLS personnel and a significant portion of the current research done by the CPI staff in this area rely upon the existing sample of CPI data for the creation of hedonic regression models.[1] When it was recommended that the Bureau expand its use of hedonic models for quality adjustment purposes to more items within the CPI, situations arose in which the existing sample size of the items chosen were deemed insufficient to support the creation of hedonic models. To alleviate this problem, supplemental samples were designed and collected exclusively for hedonic modeling purposes.[2] Despite the Bureau's having full control over this type of sample data, such an "in-house" prescription was not seen as a cure-all, because designing and collecting these data exhausts many BLS resources. Accordingly, the Bureau was led to investigate the use of hedonic models created with market data purchased from private firms that specialize in collecting point-of-sale observational data.[3] Purchased, or out-of-house, data offer many enhancements over in-house data, but are costly and have their own sets of limitations.

With home-based telephones (corded or cordless), the Bureau has an opportunity to compare the process and results of using both in-house and out-of-house data in the creation of hedonic regression models. This article discusses the issues of data quality, the specification of a model, and the application of hedonic quality adjustments to substitutions in the CPI sample. Empirical evidence and quantitative data support the topics addressed. The next section examines the characteristics of the data. Following that section, the results of the models are presented, and a discussion illustrates how they could have been used in quality-adjusting substitutions in the CPI. The final section is a follow-up of what has changed with the data and presents a brief conclusion.

The data

Sources. The price data used in the analysis that follows were collected by BLS data collectors for the CPI and by the NPD Group, a private firm that collects and sells point-of-sale marketing information. The CPI sample consists of price data for home-based telephones from the official CPI sample and a specially designed supplemental research sample that was created and collected in order to increase the robustness of the existing sample to facilitate hedonic modeling research. CPI statisticians drew the supplemental sample

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on the basis of current CPI sampling procedures. The CPI sample is designed to be representative of consumer spending habits and is distributed across the country and across all types of retail outlets. The NPD Group sample is a collection of point-of-sale data for home-based telephones from various partnered retail outlets from across the country. The Bureau purchased these data from NPD to explore the use of out-of-house data in developing hedonic regression models. NPD offers point-of-sale data for a wide range of consumer goods and services. Most of the company's clients are private firms that use the sales data to make marketing decisions.

Sample design. All of the price data for this study were collected in August and September of 2000. It was during these months that the Bureau was able to collect its supplemental sample. The agency purchased roughly 2 years of telephone data from the NPD Group, but in order to make timely comparisons with the CPI sample, only data from the aforementioned months were used in the upcoming analysis.

The CPI sample consists of price quotes, each of which represents a single item sold in a retail outlet. Each quote consists of the item's listed price at the time of collection, a description of the item's physical characteristics, and information about where the item is sold. Under current CPI sampling procedures, data collectors initiate price quotes by using a multistage probability selection technique. The probabilities of selecting items for pricing are proportional to the sales of the items. A slightly augmented item selection procedure was followed in pricing the supplemental sample. In this procedure, data collectors were told how many cellular, corded, and cordless telephones to price in each outlet. Respondents in the outlet were asked to rank unique model numbers according to their sales figures and the length of time they had been available for sale in the outlet. Unique models that were both good sellers and fairly recent arrivals to the outlet were chosen for the sample.

The supplemental sample added 398 observations to the existing 115 observations from the official CPI sample. BLS data collectors were unable to collect 21 percent of the supplemental sample. The final sample consisted of 314 supplemental observations and the 115 observations from the official CPI sample, for a total of 429 observations.

Telephones are included in the *information and information processing* CPI expenditure class (coded EE). Specifically, telephones represent one cluster in the entry-level item (ELI) category *telephones, peripheral equipment, and accessories* (EE041). This cluster includes both home-based telephones and cellular telephones. After observations for cellular telephones and observations with duplicate model numbers from within a unique retail outlet were excluded, the CPI sample for home-based telephones totaled 261 observations.

The NPD sample is a collection of aggregated and average-priced point-of-sale observations representing a group of unique product model numbers. Specifically, data are collected in various cooperating retail chain outlets. NPD classifies these outlets by type, or "channel," and then aggregates the data across channels to arrive at a national estimate of the average price for each unique product model number for which data are collected.[4] Each observation includes an average price (total expenditures for a unique product model number, divided by total number of units of that model sold) and information on the item's physical characteristics. NPD has more than 400 participating retail partners that provide the market data it sells. This group of retailers includes department stores, mass merchants, specialty stores, and other venues. Because the data are collected from transactions, they represent actual consumer purchases in those retail outlets which cooperated with the survey.

As stated earlier, the Bureau purchased approximately 2 years of monthly point-of-sale data for corded and cordless telephones from NPD, but only data from August and September of 2000 were used in this study. The combined sample of those 2 months for both corded and cordless telephones consisted of 669 observations.

The NPD sample was further reduced by eliminating observations pertaining to unique product model numbers collected in August when data on those same numbers also were collected in September. Unique product model numbers with data for only August or only September were kept in the sample. After these reductions, the final data set totaled 371 NPD observations.

Cleaning. Cleaning the data sets was a tedious exercise, but one that had to be regarded with importance. The CPI sample was cleaned by attempting to match the descriptions of all collected manufacturer model numbers with descriptions found on manufacturers' Internet Web sites. Corrections were made to the data when inconsistencies were found. Not all model numbers were capable of being verified through the manufacturers' sites, however. Because old models are discontinued and replaced by new models every few months, it becomes difficult to find data for older model numbers after a long time has passed since their discontinuation. For those model numbers for which primary data were not available, credible secondary Internet Web sites were used for verification.

A unique characteristic of the CPI data is that they contain information about the type of business or retail outlet where the data were collected. The variable that gives this information is included in many hedonic regression models created by the CPI. Its primary use is as a control variable to account for the effects that varying business practices may have on the price of goods offered in an outlet. Each type of business category is assigned a code that BLS data collectors use to classify the retail outlet in which data are collected. Inconsistencies and coding errors between the classifications and actual retail outlet names were evaluated and corrected as needed.

Cleaning the NPD data was surmised to be a task less tedious than cleaning the CPI data. The reasoning behind this assumption begins with the fact that describing the characteristics of an item correctly is difficult, given the diversity of work each CPI data collector is responsible for, the complexity of the data collection forms, the variety of the items themselves, and the paucity of knowledgeable respondents within outlets. The CPI data thus needed to be reviewed. By contrast, the NPD Group is a company whose business is collecting and selling market data. The accuracy of the NPD data is improved by electronic scanners in the retail outlets that supply data to the company. These scanners record price and quantity information, along with a minimal amount of characteristic information in the form of SKU numbers (unique identifying numbers manufacturers assign to their products). NPD maintains a library of SKU's and characteristic information on each one. Some degree of quality control is employed by NPD in packaging the company's data. Collecting and maintaining data in this way would seem to result in fewer errors in the measurement of characteristic variables.

To test this theory, a random sample (5 percent of the total) was generated from each "precleaned" data set, and the item descriptions of those model numbers were checked against either manufacturers' information or information from credible secondary sources. The following tabulation of the quality of the samples before cleaning shows the results of this analysis (entries are percentages):

Item descriptions	*CPI, 5 percent, n = 14*	*NPD, 5 percent, n = 18*
Correct	36	82
Missing or incorrect specifications	43	12
Could not verify	21	6

Because more than 80 percent of the NPD sample had correct descriptions, compared with roughly one-third of the CPI sample, verifying each model number in the NPD sample might have proven inefficient and unwise. Accordingly, another element of the NPD sample was selected for investigation: the description field.

Found in the NPD sample purchased by the Bureau, the description field consists of a highly general description of each unique model number. The latter is likely to be a product identifier used by the manufacturer or retailer. A random selection of model numbers was cross-checked by comparing the information in the description field with the item's actual description. The consistency between the two was similar enough to justify simply verifying the item description by consulting the description field for all the model numbers in the sample.

The NPD sample had to be further reduced after the initial cleaning phase. A total of 10 unique product model numbers had no price, rendering them unsuitable for modeling purposes. Seven model numbers were for items that were outside the scope of the CPI and therefore were ineligible for pricing.[5] Finally, two model numbers had average prices that were well below average for the types of telephones they represented. After deletion of those 19 unique model numbers, the final NPD sample stood at 352.

Market and product background. The market for home-based telephones is an established, mature market. Most consumers who have such telephones already have replaced their old ones with more technologically advanced models as they arrive in the marketplace (for example, corded to cordless or analog cordless to digital cordless phones). Consumers routinely accept new generations of advanced technology, and a few premium features are well known and valued by consumers. Manufacturers of home-based telephones bundle the different varieties of their product with features the consumer is thought to value.

Corded telephones allow for a clear, static-free conversation, but lack the convenience and mobility of a cordless telephone. Still, many people choose to keep corded telephones in their homes because they are inexpensive and reliable. Consumers of cordless telephones are met with a wide variety from which to choose. The most basic and inexpensive type of cordless telephone is the 46- to 49-MHz analog phone. For more security, 900-MHz analog telephones are available, although they provide less clarity and security than their 900-MHz digital counterparts. Home-based telephones underwent a substantial technological improvement in 1995 with the introduction of digital spread-spectrum (DSS) technology. This feature allows the signal to randomly jump channels, making it less susceptible to interference and eavesdropping. As the popularity of cordless telephones grew, the 900-MHz frequency range became overcrowded. In response, the Federal Communications Commission opened up the 2.4-GHz frequency to cordless telephones in 1998, whereupon the operating range of such telephones increased substantially.[6] However, even though the capability of a telephone to function at larger bandwidths is a valued characteristic, it is not as valuable as the ability to operate through DSS technology. While there are fewer signals to interfere with in the higher frequencies and the operating range is increased, without DSS technology interference and decreased security can still be problematic.[7] 5.8-GHz technology was not available during the period covered by this study, but has recently become available in the U.S. market for cordless phones.

Home-based telephone manufacturers will typically produce many models of a telephone, with each model including certain valued features. For example, a manufacturer may produce four types of 900-MHz digital phones: a basic model, a digital phone with caller ID, a digital speakerphone with caller ID, and a digital speakerphone with caller ID and a digital answering machine. It is presumed that the prices of these different telephones will become progressively higher as each additional feature is added to the basic model.

Comparing the samples. A closer look at the CPI and NPD data sets reveals a similar distribution in the number of observations of each type of telephone. Chart 1 shows the distribution of unique model numbers for each type of telephone by the percent of each sample. Four different samples will be analyzed in this section: the CPI, the unweighted NPD, the quantity-weighted NPD (NPDQ), and the value-weighted NPD (NPDV).[8] In the August and September 2000 data set, most of the cordless telephones operate at 900 MHz. This type of telephone was, and still is, very popular. Corded telephones account for a large percentage of each sample, a fact that is interesting because the NPD sample for corded telephones is collected independently of the company's sample for cordless telephones and the NPD samples reflect transaction spending behaviors by consumers. In contrast, the CPI substitution procedure of pricing another item of similar quality when the original item is no longer available could result in a biased sample consisting of a disproportionate number of corded telephones or older generations of cordless telephones that are available for sale, but of which few are actually sold. However, because of the similarities in the percentages of each type of telephone in the CPI and NPD samples, it appears that the sample is unbiased toward any one type of telephone. Another point of interest is that the percentage of 2.4-GHz DSS telephones in the CPI sample is more than twice as large as the percentage of those telephones in the NPD and NPDQ samples, but less than the percentage in the NPDV sample. The reason for these disparities could be that the CPI sample is disproportionately representing a new good. It is also important to note that the CPI sample had no 2.4-GHz analog telephones and the NPD sample had no 2.4-GHz digital telephones. Whether these omissions will result in any specification bias is unclear.

Overall, a priori expectations of the average prices of telephones were met. The newer, more sophisticated telephones clearly have higher average prices than the older telephones. Chart 2 shows the distribution of average prices by type of telephone for all samples. The average price of each type of telephone is usually higher in the CPI sample. This pattern is expected, because the Bureau collects list-price data for the CPI sample whereas NPD collects transaction prices, which usually are lower than list prices. The NPDV sample has a slightly higher average price than the NPDQ sample for each type of telephone. This difference has implications in the debate over whether to use quantity weighting or value weighting. Erwin Diewert suggests that quantity weighting tends to give too little weight to high-priced models and too much weight to less expensive models that have fewer newer characteristics.[9]

Another perspective from which to compare the similarities between the CPI and NPD samples is to examine the distribution of brand names and unique model numbers found in those samples. The final CPI sample of 261 observations contains 18 brand names and 156 unique model numbers. The final NPD sample of 352 observations contains 22 brand names and 352 unique model numbers.[10] In total, 13 brand names and 67 model numbers were common to both samples.

Quality characteristics. Three unique value-adding characteristics of the CPI and NPD data sets are of particular interest to the analysis presented. The first is the vintage variable found in the NPD sample. The vintage represents the date each unique model number first appeared in the sample. It marks the introduction and prevalence of new, innovative technologies in the telephone market. The vintage variable is useful because it makes it possible to observe the changing prices of models over time. As stated earlier, only data for August and September of 2000 were used for this study, but approximately 2 years of telephone data were purchased from NPD. Looking at data over this longer period may reveal trends in the pricing behavior over the product life cycle.

Chart 3 graphs the average vintage (or age) and the average (unweighted) price of each type of telephone. Vintage is measured by the number of months each model number has been in the sample. Newer model numbers will have lower vintage values. Model numbers that were introduced in September 2000 have a vintage value of unity. The vintage values were averaged for each type of telephone. In this small sample of data, it is apparent that those telephone models which are likely to have the lowest vintage values (the 2.4-GHz models) and the most advanced features (the DSS models) also have the highest average prices. The vintage variable has many uses as a diagnostic tool and may indeed be valuable in modeling the NPD data.

Another valuable feature of the NPD sample is the ability to weight each model number in it by either the quantity of units sold or the value of expenditures on that model number. As illustrated earlier in chart 2, the average prices of the various types of telephone can differ under all three weighting methods, a feature whose implications will be examined later in the article.

It seems clear that, by the nature of the NPD data, a weighted sample would be preferred over an unweighted sample. Unweighted, the NPD sample is simply an equally weighted list of model numbers; weighted, however, it becomes a more informative sample, indicating consumers' preferences for telephones. The importance of weighting is obvious in the case of the 46- to 49-MHz telephones: as shown in chart 1, this type of telephone represents a sizeable percentage of the unweighted NPD sample, but its presence in the weighted sample is minuscule. The opposite is true with the 900-MHz analog telephones, whose impact in the weighted sample is far greater than in the unweighted sample.

The CPI sample does not weight quantity or expenditure data, but it is designed in a manner that gives more popular models a greater chance of being included in the sample. It could be argued that this is a satisfactory weighting method, but it is unlikely that it is as capable of tracking consumer spending preferences as accurately as the electronic scanners found in the checkout lines of NPD's retail partners.

Chart 1. Percent of sample by type of telephone for each sample

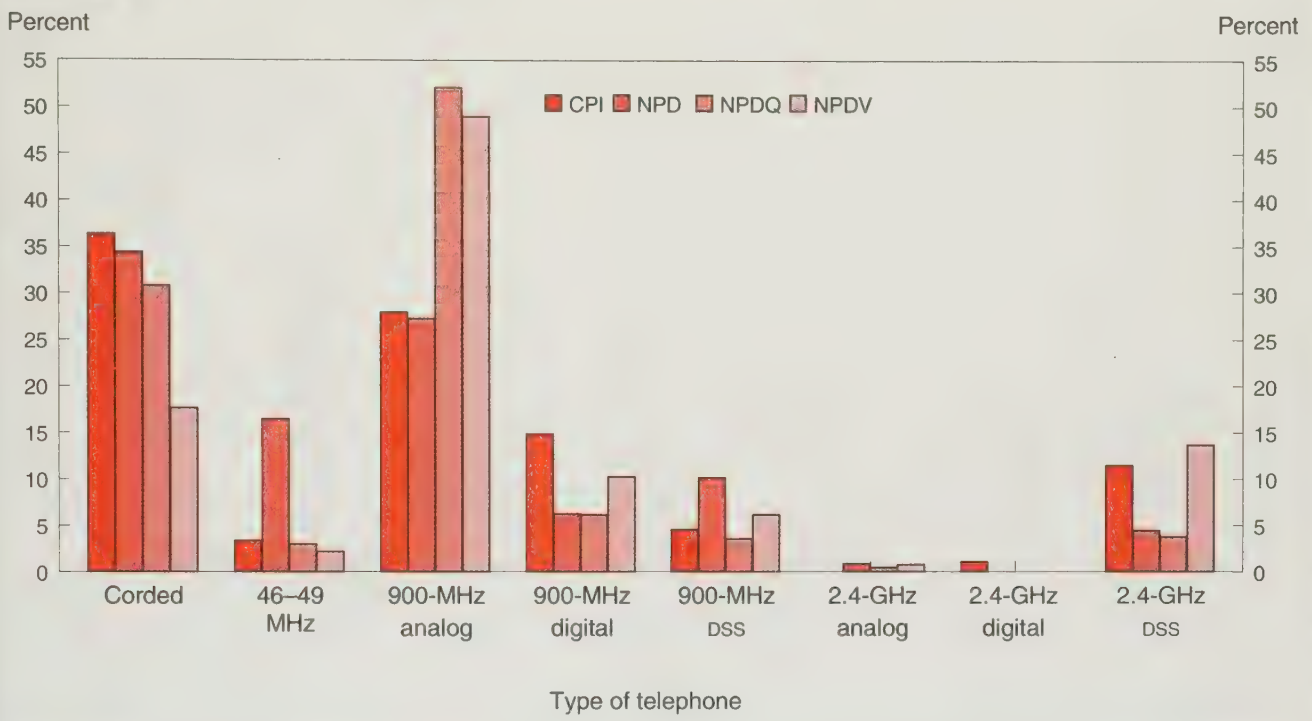


Chart 2. Average prices of telephones by type for each sample

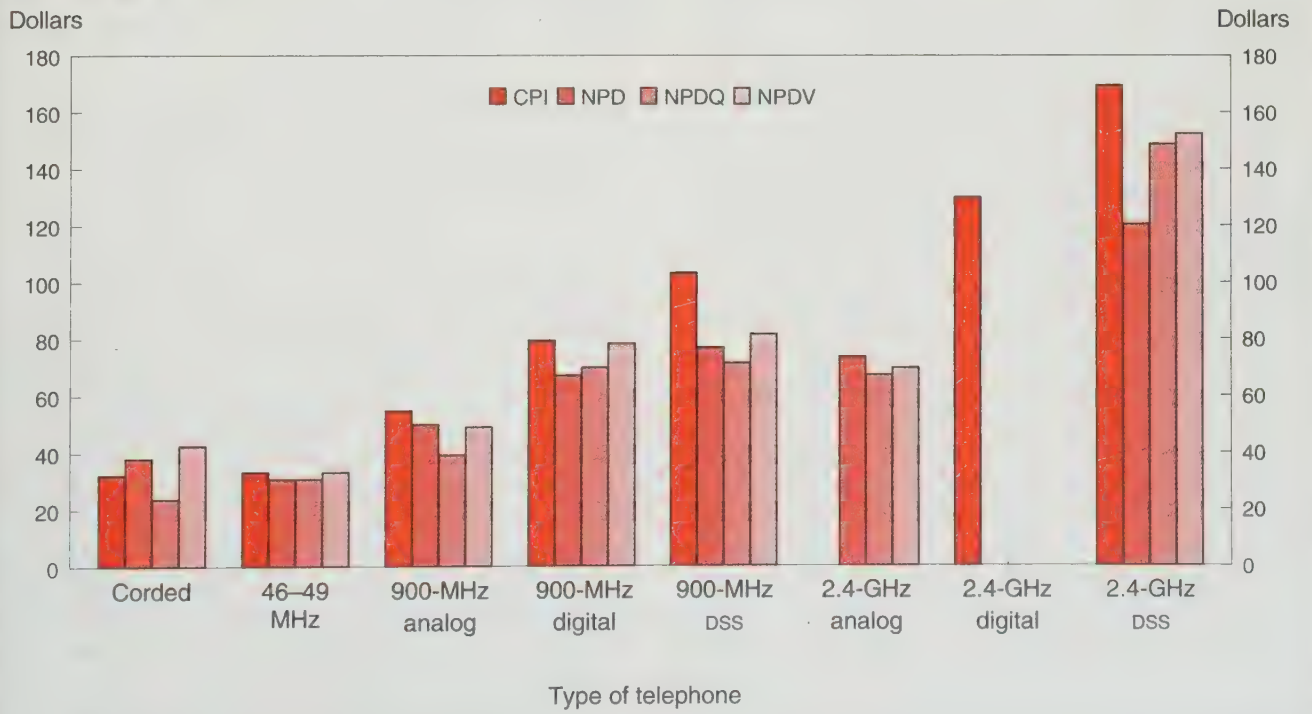
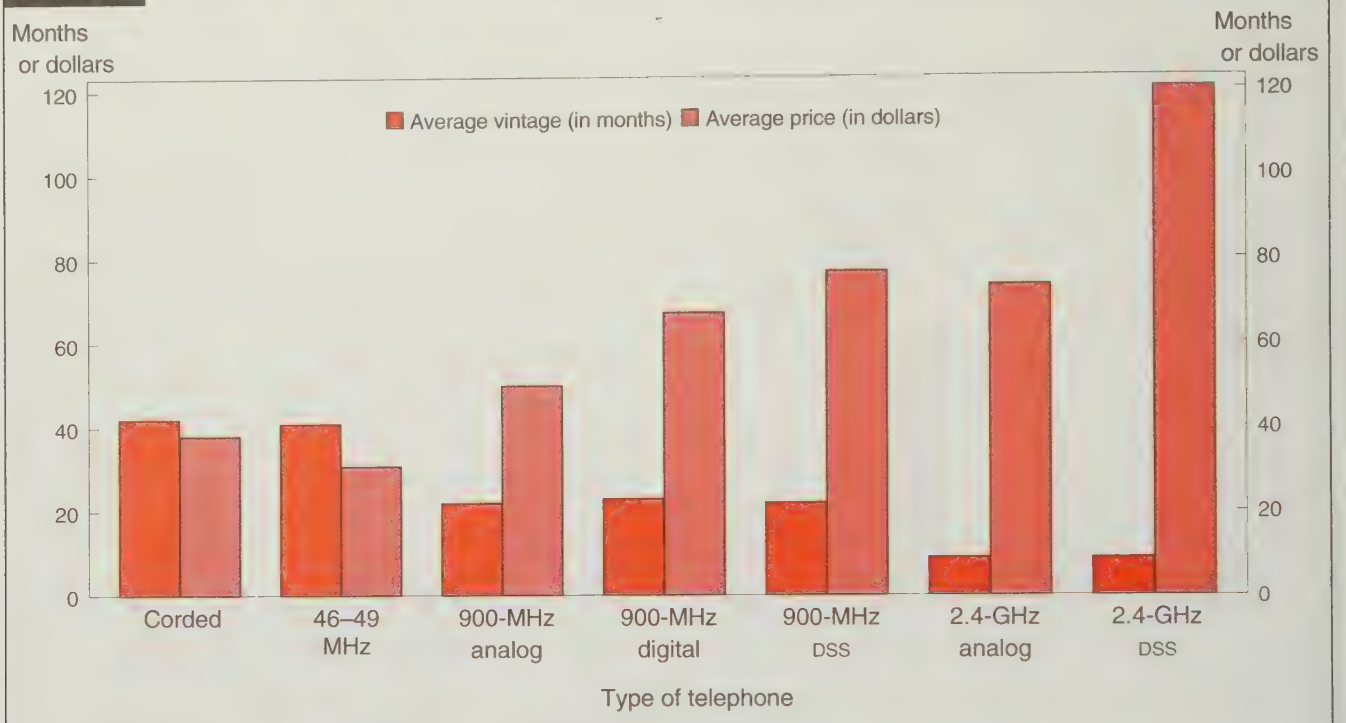


Chart 3. Average vintage and average price for types of telephone, NPD sample[1]



[1] There are no 2.4-GHz digital telephones in the NPD samples.

The final quality characteristic worth mentioning is the set of control variables available in the CPI sample. The CPI uses the list price advertised for each type of telephone at the time the data are collected. CPI data collectors report that price and indicate whether it was classified as a sale price or a regular price. This information is used as a control variable in some hedonic models employed by the CPI to control for the negative effect sale price indicators have on prices, other things being equal.

The CPI also includes information on the types of retail outlets in which the data are collected. This feature of the CPI sample is important, because it aids in controlling for the effects each type of retail outlet may have on the price of the items offered there. Usually, when these control variables are included in hedonic models, the resulting parameter estimates are logical and in accordance with a predicted order of relative value.

The last control variable of note in the CPI sample is that indicating the region and city size for each observation. The CPI divides the United States into four regions, and the cities in which the Bureau collects data are assigned one of three size labels based on their populations. Variables for region and city size are used to control for the possible effects location may have on the price of goods sold. The usefulness of the geography variables is difficult to quantify, but they do aid in minimizing the unexplained variation in those price-determining variables which are being estimated.

Data reservations. Despite the number of positive attributes associated with both data sets, four lingering reservations about the data deserve attention:

- The representativeness of the samples
- The absence of area, outlet (or channel), and type-of-price indicators from the NPD sample
- The quality of the characteristic data
- The age of the data

The discussion of the representativeness of the data is best addressed by splitting it into two issues. The first is whether the data are representative of the market for home-based telephones. Mary Kokoski, Keith Waehrer, and Patricia Rozaklis note that, because the NPD sample is not collected under the probability sampling procedures that are used for the CPI sample, the relative degrees of representation of specific models in the respective samples are different.[11] The NPD sample is capable of reflecting changes in consumer purchasing habits, because it is a measure of actual telephone purchases. In this regard, the NPD sample could be more representative of the market for telephones than the CPI sample, which has the potential to be skewed toward older models due to the CPI's procedure that instructs data collectors to substitute an item of similar quality when the one they were originally pricing becomes unavailable.[12] As shown in

chart 1, however, such a concern over representativeness is not entirely warranted in this situation, because the CPI and NPD samples are fairly similar in their distribution of the various types of telephone.

The second issue with regard to representativeness has to do with where the data are collected. The outlets from which the Bureau collects price quotes for the CPI differ from those sampled by NPD, thus affecting both the product mix and prices. The CPI data are collected in a wide variety of retail outlets across the country. These outlets, which represent answers by respondents of the Consumer Expenditure Survey to questions about where they make their purchases, are chosen through statistical sampling procedures.[13] NPD, by contrast, collects its data from retail outlets it has partnerships with. This approach introduces some bias into the NPD sample, because some types of retail outlets may not be represented in the national sales figures NPD produces. In particular, the Bureau is aware that certain major discount department stores do not contribute data to NPD. The exclusion of important retailers from the NPD sample is a critical shortcoming of the NPD data.

The second reservation regarding the data—the absence of area, outlet, and type-of-price indicators from the NPD sample—deals with factors that contribute to the quality of the models. Each price quote in the CPI is accompanied by information stating where it was collected. This information consists of the specific outlet name, a type of business classification code, and the size and region category of the city in which the quote was collected. The information is converted into variables that control for the effects different types of business practices and geographic locations may have on the product mix and price. Such control usually helps minimize the variation in parameter estimates for price-determining characteristics in the model. The NPD sample does not have any control variables; therefore, even if the NPD sample happened to be collected in the same mix of retail outlets that the CPI sample used, there would still be no way of accounting for the effects of geography and outlet characteristics in regression models constructed from NPD data.

The NPD sample also lacks a sale or markdown price indicator. Unlike the CPI sample, the NPD sample uses an aggregated average price of the units sold for a unique model number in the outlets that supply data to NPD. Such an average, however, is a national average and has no indication of whether the units were sold at a sale price or a regular price. Because items sold at a sale price generally are of a lower price than other items of similar quality, all other things being equal, it is appropriate to control for the effects of sale prices in the regression model through the use of a dummy variable.

The third reservation about the data concerns the quality of characteristic data. Well-defined characteristic data are essential to creating reliable models. CPI researchers spend considerable amounts of time and resources preparing and cleaning the data they use for modeling. The NPD characteristic data were defined more precisely than the CPI characteristic data. However, it may be unwise to assume that NPD data for all other goods would be of the same level of quality as the telephone data. By the same token, while the CPI sample for telephones was not as well defined, CPI data for other goods may be of a more acceptable quality. More importantly, the collection of CPI data is under the control of the Bureau and is capable of being manipulated in order to increase the quality of the data. CPI data collectors can be directed as to what data to collect, and data collection forms can be updated to capture innovations and other valuable quality characteristics. The Bureau forgoes this level of involvement with NPD data.

Besides having this obvious concern about the accuracy of each data set, analysts may worry about the possibility that the definitions, categories, and quality characteristics identified by both data sets will differ from one another. Because hedonic models created with NPD data could eventually be used to make quality adjustments to CPI data, the variables denoting quality characteristics in those models would need to be similar enough to the specifications found in the CPI data for the desired quality adjustments to be made. For the most part, the CPI and NPD data are fairly similar, although there are a few differences worth mentioning in the subsequent discussion of the hedonic models.[14]

The last major reservation about the data has to do with their age. Both samples represent data from August and September of 2000. The CPI sample was cleaned for this study during the first half of 2002, and the NPD sample was cleaned during the first quarter of 2003. Given the amount of time between collection and cleaning, difficulty arose in verifying the descriptions of each model number through Internet sites. Many model numbers were either no longer current or completely out of production by the time the data were cleaned. Also, the telephone market has changed considerably since 2000. 2.4-GHz telephones are far more prevalent now, and new technologies are available. Accordingly, using hedonic models created with old data to quality-adjust substitutions in current samples is questionable, especially because the market for telephones is so different now from what it was then. If the coefficients of the variables were created from current data, they would likely be quite different from what they were a number of years ago.

Model specification

The first step in building the hedonic model is creating variables from the telephone data. Dummy variables were constructed for all characteristic data, except for the vintage variable in the NPD models. Vintage is a continuous variable, and its parameter estimate must be multiplied by the age of the unique model number (in months) to be interpreted correctly.

Once the variables are created, a functional form for the regression model is chosen and the model is specified on the basis of a priori assumptions about price-influencing characteristics. The most common functional form recommended in the

hedonic literature is the semilogarithmic form.[15] This form is preferred because it fits the data particularly well and because the coefficient estimates generated from the model can be interpreted as being the proportion of a good's price that is directly attributable to the respective characteristics of that good. The semilogarithmic form is given by the equation

$$\ln p_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_n X_{ni} + \varepsilon_i,$$

where $\ln p_i$ is the natural logarithm of the price of each good, β_j is the coefficient of the characteristic variable X_j, and ε_i is the error term. The value of β_0 is interpreted as the value of the base good without any of the quality characteristics that add value to or subtract value from that good.[16] The dependent variable is defined differently in both samples: for the CPI sample, it is the list price collected for each observation; the NPD sample uses the average transaction price of each unique model number.

As stated earlier, the NPD sample is capable of being weighted by the quantity of units sold or by the value of expenditures for each model number. Given this capability, regression models were calculated for the earlier mentioned four different data sets: the CPI sample, the unweighted NPD sample (NPD), the NPD sample with value weighting (NPDV), and the NPD sample with quantity weighting (NPDQ).

Preliminary models. A set of preliminary models, each of which included only variables for the types of telephones, a variable controlling for prices collected on sale, and a continuous variable for vintage produced the results shown in table 1. The order of the relative values of the coefficients for the telephone-type variables matches a priori expectations. All of the cordless types of telephone are of greater value than the corded telephones. Cordless 46- to 49-MHz analog telephones are statistically insignificant in all models except the NPDQ. The other cordless types of telephone are in an expected order, with 2.4-GHz DSS types having the largest coefficient in all models. The CPI sample did not have any 2.4-GHz analog telephones, and the NPD, NPDV, and NPDQ samples did not have any 2.4-GHz digital telephones. The sign on the coefficient for the sale price variable in the CPI model is negative, meeting a priori expectations, but the variable is statistically insignificant. The sign on the coefficient for the vintage variable is negative, also meeting expectations, and is statistically significant in all three of the NPD models.

Final models. Additional characteristic variables were included in the final models, along with a few brand-name variables. Control variables for the type of business, the region, and the size of the city in which the data are collected were included in the final CPI model. The final models yielded the results shown in table 2.

Other than the variables for the type of telephone and the brand name, only the caller ID, handset keypad, and dual keypad characteristic variables appear in all four models. The caller ID variable is statistically significant in all models, and its coefficient values in the CPI, NPDV, and NPDQ models are similar. The same is true for the keypad placement variables. Corded telephones with keypads only on the handset are typically featureless and inexpensive, which explains the negative sign on the coefficient of the associated variable. By contrast, cordless telephones with keypads on both the base unit and the handset are generally more sophisticated than those with keypads only on the handset, resulting in large positive coefficients for this variable.

Other characteristic variables are similar, but not exactly the same, in all models. For example, the speakerphone feature variable applies only to corded telephones in the CPI model, but only to corded telephones without three or more line capabilities in the NPD models. Multiple line capability also is modeled differently in the various models. In the CPI model, the variable for multiple line capability does not distinguish between telephones with exactly two lines and telephones with three or more lines. By contrast, the NPD models make this distinction. Still, the variable for two line capabilities in the NPD models does not apply to telephones with conference call capability, and the variable for three or more lines applies only to corded telephones.

Some characteristic variables are unique to one data set. For instance, the CPI model includes a variable for telephones with digital answering machines attached. Oddly, there are no variables for these types of telephones in the NPD sample. The NPD models, however, include variables for conference call and

Table 1. Preliminary models

Variable name	CPI	NPD	NPDV	NPDQ
Intercept	[1]3.236	[1]3.647	[1]3.839	[1]3.263
	(–.0542)	(–.0874)	(–.0845)	(–.0653)
Corded	Base	Base	Base	Base
	...	...	...	...
Cordless 46–49 MHz	.157	–.028	–.087	[1].304
	(–.1829)	(–.0978)	(–.1799)	(–.1473)
Cordless 900-MHz analog	[1].697	[1].304	.101	[1].418
	(–.0827)	(–.0897)	(–.0783)	(–.0623)
Cordless 900-MHz digital	[1]1.103	[1].653	[1].655	[1]1.039
	(–.1004)	(–.1451)	(–.1033)	(–.1099)
Cordless 900-MHz DSS	[1]1.392	[1].796	[1].602	[1]1.011
	(–.1614)	(–.1209)	(–.1253)	(–.139)
Cordless 2.4-GHz analog	[2]	[1].703	.500	[1]1.002
	...	(–.3618)	(–.2883)	(–.3444)
Cordless 2.4-GHz digital	[1]1.492	[2]	[2]	[2]
	(–.3074)	...	...	...
Cordless 2.4-GHz DSS	[1]1.885	[1]1.122	[1]1.271	[1]1.786
	(–.1104)	(–.1712)	(–.1011)	(–.1358)
Sale price	–.155	[2]	[2]	[2]
	(–.0921)	...	...	...
Vintage	[2]	[1]–.008	[1]–.012	[1]–.008
	...	(–.0016)	(–.0018)	(–.0013)
Adjusted R^2	.586	.344	.551	.546
F value	53.56	27.35	62.43	61.36
Number of observations	261	352	352	352

[1] Statistically significant at the $p = .05$ level.
[2] Not in model.

Table 2. Final models

Variable name	CPI	NPD	NPDV	NPDQ
Intercept	[1]3.157	[1]3.101	[1]3.014	[1]2.857
	(.0725)	(.0997)	(.0718)	(.0615)
Corded	Base	Base	Base	Base
	...	...	...	...
Cordless 46–49 MHz	.105	[1].213	[1].202	[1].205
	(.1236)	(.0959)	(.0940)	(.0830)
Cordless 900-MHz analog	[1].545	[1].507	[1].491	[1].488
	(.0718)	(.0959)	(.0711)	(.0605)
Cordless 900-MHz digital	[1].758	[1].783	[1].696	[1].642
	(.0881)	(.1334)	(.0796)	(.0765)
Cordless 900-MHz DSS	[1]1.044	[1]1.060	[1].964	[1].949
	(.1106)	(.1129)	(.0808)	(.0819)
Cordless 2.4-GHz analog	([2])	[1]1.073	[1]1.083	[1]1.207
	...	(.2595)	(.1237)	(.1527)
Cordless 2.4-GHz digital	[1].861	([2])	([2])	([2])
	(.1978)	...	...	...
Cordless 2.4-GHz DSS	[1]1.413	[1]1.211	[1]1.420	[1]1.466
	(.0891)	(.1533)	(.0826)	(.0951)
Sale price	−.070	([2])	([2])	([2])
	(.0585)	...	...	...
Vintage	([2])	[1]−.004	−.001	.0001
	...	(.0012)	(.0008)	(.0007)
Digital answering machine	[1].406	([2])	([2])	([2])
	(.0549)	...	...	...
Speakerphone (corded)	[1].235	([2])	([2])	([2])
	(.0796)	...	...	...
Speakerphone (not three-line capable)	([2])	[1].379	[1].334	[1].276
	...	(.1054)	(.0784)	(.0681)
Conference call (not three-line capable)	([2])	[1].453	[1].657	[1].706
	...	(.1129)	(.0723)	(.0751)
Intercom (not dual keypad)	([2])	.134	.040	.074
	...	(.1223)	(.0512)	(.0900)
Clock radio	([2])	[1].677	[1].565	[1].587
	...	(.1407)	(.0903)	(.0853)
Caller ID	[1].456	[1].330	[1].466	[1].504
	(.0449)	(.0554)	(.0233)	(.0259)
Two-or-more-line capability	[1].420	([2])	([2])	([2])
	(.0811)	...	...	...
Two-line capability (no conference calls)	([2])	[1].451	[1].509	[1].506
	...	(.0868)	(.0418)	(.0616)
Three-or-more-line capability (corded)	([2])	[1]1.860	[1]1.759	[1]1.783
	...	(.1597)	(.0864)	(.1046)
Keypad on handset only (corded)	[1]−.312	[1]−.317	[1]−.424	[1]−.414
	(.0794)	(.1597)	(.0785)	(.0621)
Keypad on base and handset (cordless)	[1].274	[1].224	[1].305	[1].341
	(.0665)	(.0716)	(.0308)	(.0437)
Corded handset on base (cordless)	([2])	−.122	−.133	−.178
	...	(.3171)	(.0962)	(.1417)
Extra-handset capability (cordless)	([2])	.334	−.055	−.151
	...	(.2374)	(.0628)	(.1223)

Table 2. Continued—Final models

Variable name	CPI	NPD	NPDV	NPDQ
Headset style design	([2])	[1].905	[1].799	[1].824
	...	(.1377)	(.0674)	(.1051)
Headset jack	([2])	.075	[1].105	[1].154
	...	(.0700)	(.0285)	(.0336)
Brand B	Base	Base	Base	Base
	...	...	...	...
Brand C	[1].200	[1]−.154	−.036	[1].087
	(.0595)	(.0753)	(.0384)	(.0396)
Brand A	[1].189	.142	[1].182	[1].294
	(.0726)	(.0789)	(.0421)	(.0487)
Brand M	[1]−.851	([2])	([2])	([2])
	(.1522)	...	...	...
Brand H	−.098	[1]−.161	[1]−.243	[1]−.153
	(.0752)	(.0724)	(.0314)	(.0303)
Brand G	−.092	[1]−.216	[1]−.233	[1]−.110
	(.0787)	(.0815)	(.0386)	(.0450)
Brand F	.021	[1]−.263	[1]−.205	[1]−.083
	(.1008)	(.1045)	(.0345)	(.0377)
Brand N	([2])	[1]1.010	[1]1.000	[1]1.088
	...	(.1823)	(.3014)	(.3524)
Audio/video store	Base	([2])	([2])	([2])
	...	...	...	...
Full-price department store	[1]−.140	([2])	([2])	([2])
	(.0743)	...	...	...
Discount appliance store	[1]−.196	([2])	([2])	([2])
	(.0735)	...	...	...
Discount department store	[1]−.289	([2])	([2])	([2])
	(.0551)	...	...	...
Warehouse	[1]−.330	([2])	([2])	([2])
	(.0679)	...	...	...
Midwest region	[1].104	([2])	([2])	([2])
	(.0477)	...	...	...
C-sized city	[1]−.414	([2])	([2])	([2])
	(.1076)	...	...	...
Adjusted R^2	.852	.693	.940	.922
F value	60.62	31.49	210.94	160.58
Number of observations	261	352	352	352

[1] Statistically significant at the $p = .05$ level.
[2] Not in model.

intercom capabilities, clock radio units, headset jacks, and headset-style designed telephones. Generally, the values of these variables are statistically significant and have the expected signs on the coefficients.

Two variables unique to the NPD samples have values that are not statistically significant in the final NPD models, but that should be noted because of their significance in the current market for telephones. Three cordless telephone models include a corded handset on their base unit, and four cordless telephone models are capable of adding extra cordless handsets to their operation. Telephones with either of these features had average prices 2 to 3 times greater than prices for those without the

features, yet, because relatively few of these telephones were sold, they were not statistically significant in the models.

A comparison of the adjusted R^2 values from each model reveals some interesting results. First, the unweighted NPD model has a much lower adjusted R^2 value than do the value- and quantity-weighted models. This is expected, because, in general, weighted regressions produce much better fits. Of the two weighted models, it is unclear which is preferred. The argument by Diewert that quantity weighting ignores higher priced models with innovative features in favor of lower priced models with fewer advanced features[17] is not fully realized, because both models have the same number of characteristic variables with statistically significant values and the quantity-weighted model actually has one more brand-name variable with a value that is statistically significant. In fact, most of the variation in the coefficients of these two models appears to be found in the brand-name variables. Variations in the coefficients of other variables appear negligible.

The other point of interest is the adjusted R^2 value of the CPI model. Comparing adjusted R^2 values from two different models is not econometrically sound, but if the values are compared in terms of how well each model explains the variation in its own data set, then it is fair to comment on the results. Under this analytical framework, it is interesting to note that the CPI model explains more of the variation in its data set than the unweighted NPD model does in its data set, while the weighted models explain more variation in price than the other two do.

Experimental models. To compare the samples further, experimental models were run on modified data sets consisting of the observations for unique model numbers common to the CPI and NPD samples.[18] As stated earlier, there were 67 unique model numbers common to both samples. These model numbers represent 118 observations in the CPI sample and 67 observations in the NPD samples. Because the data sets consist of the common model numbers, the experimental models are specified with the same variables, which represent the quality characteristics present in the 67 common model numbers. These quality characteristics are found to be most consistently statistically significant in the final models in table 2. Variables for 12 of the 13 brand names common to all of the data sets also were included.[19] The experimental models yielded the results shown in table 3.

The variables for the type of telephone and many of the feature variables remain very strong in these models. Two exceptions are the variables for handset placement, which are significant in the final models, but not in the experimental models. Also, although many of the telephone type and feature variables are significant, there are large differences in the parameter estimates for these variables. For example, the parameter estimates for cordless 900-MHz digital telephones range from 0.730 to 0.933, and the parameter estimates for the speakerphone feature range from 0.302 to 0.498. There is also much variation in the statistical

Table 3. Experimental models

Variable name	CPI	NPD	NPDV	NPDQ
Intercept	[1]3.124	[1]3.08	[1]3.144	[1]3.121
	(.1255)	(.1823)	(.2086)	(.1635)
Corded	Base	Base	Base	Base
	..	...	...	...
Cordless 46–49 MHz	.221	[1].528	.463	[1].497
	(.1944)	(.2269)	(.2396)	(.1908)
Cordless 900-MHz analog	[1].645	[1].617	[1].569	[1].571
	(.1073)	(.1646)	(.2045)	(.1550)
Cordless 900-MHz digital	[1].920	[1].933	[1].760	[1].730
	(.1290)	(.2287)	(.2220)	(.1947)
Cordless 900-MHz DSS	[1]1.277	[1]1.084	[1].964	[1].981
	(.1272)	(.1653)	(.2149)	(.1822)
Cordless 2.4-GHz DSS	[1]1.460	[1]1.611	[1]1.403	[1]1.407
	(.1476)	(.2148)	(.2132)	(.1854)
Caller ID	[1].480	[1].377	[1].499	[1].506
	(.0585)	(.0843)	(.0437)	(.0510)
Two-or-more-line capability	[1].388	[1].478	[1].518	[1].452
	(.1147)	(.1648)	(.1032)	(.1480)
Speakerphone	[1].302	[1].414	[1].482	[1].498
	(.1103)	(.1680)	(.2209)	(.1695)
Conference call capability	.078	.087	.125	.211
	(.1588)	(.3543)	(.3751)	(.4098)
Keypad on handset only (corded)	−.158	−.242	−.221	−.193
	(.1010)	(.1737)	(.2099)	(.1543)
Keypad on base and handset (cordless)	−.180	−.308	−.253	−.176
	(.1288)	(.2036)	(.2240)	(.1868)
Brand A	.005	.1040	.0750	−.001
	(.1083)	(.1374)	(.0811)	(.0948)
Brand B	Base	Base	Base	Base
	...	...	...	...
Brand C	−.023	−.112	−.144	−.141
	(.1093)	(.1441)	(.0743)	(.0807)
Brand D	−.053	−.074	−.053	−.040
	(.2783)	(.3121)	(.1629)	(.3325)
Brand E	−.155	−.050	−.189	−.174
	(.2820)	(.2993)	(.1960)	(.2477)
Brand F	−.177	−.243	[1]−.368	[1]−.372
	(.1282)	(.1785)	(.0667)	(.0709)
Brand G	[1]−.359	[1]−.291	[1]−.405	[1]−.396
	(.1137)	(.1427)	(.0681)	(.0809)
Brand H	[1]−.400	[1]−.373	[1]−.583	[1]−.595
	(.1204)	(.1544)	(.0630)	(.0660)
Brand I	[1]−.499	−.266	[1]−.500	[1]−.501
	(.2229)	(.2609)	(.1423)	(.1114)
Brand J	−.516	−.130	−.269	−.254
	(.2901)	(.2993)	(.1509)	(.1842)
Brand K	[1]−.547	−.175	[1]−.272	−.262
	(.1570)	(.1893)	(.1062)	(.1368)
Brand L	[1]−.753	[1]−.628	[1]−.735	[1]−.738
	(.1691)	(.2232)	(.1656)	(.1159)
Adjusted R^2	.8834	.8447	.9688	.9542
F Value	41.28	17.31	94.24	63.46
Number of observations	118	67	67	67

[1]Statistically significant at the $p = .05$ level.

significance of, and parameter estimates for, the brand-name variables.

The adjusted R^2 values of the experimental models are quite high. As suggested earlier, they are highest in the weighted models, with the CPI model and the unweighted NPD model following after.

Quality adjustment results

To assess the usefulness of a hedonic model for home-based telephones, the model's parameter estimates were applied to home-based telephone substitute price quotes (items selected by CPI data collectors to replace previously collected items that are no longer available) with quality changes. Substitutions from the months of May and June 2003 were chosen for this exercise. There were 18 home-based telephone substitutions during those 2 months. In the published index, 22 percent of the substitutions were compared directly with the previous item. The price changes for the remaining noncomparable substitutions were imputed, or "linked," essentially by assuming them to be the same as the elementary item price change for the same geographic area that month.[20]

The comparability decisions of the 18 substitutions were reassessed on the basis of the four hedonic models. Nearly 67 percent of the substitutions underwent quality changes that could be adjusted for with the use of one of the hedonic models. After the reassessment was complete, 39 percent of the substitutions were adjusted with the CPI model, 28 percent were adjusted with the NPD models, and 33 percent of the prices were directly compared under all four models.[21] The remaining substitutions (28 percent under the CPI model and 39 percent under the NPD models) were deemed noncomparable, and the price changes would have been imputed with the link method. The substitution comparability ratio (the ratio of directly compared and quality-adjusted substitute quotes to the total number of substitute quotes) jumped from 22 percent in the published index to 72 percent under the CPI model and 61 percent under the NPD models. Most of the quality adjustments were calculated for changes in the caller ID variable and brand-name changes, and most of the noncomparable substitutions had unadjustable quality changes, such as an expandable phone system capability and extra handsets included with the system. Table 4 summarizes the specification and quality changes that occurred in the substitutions.

The hedonic models were analyzed further through a comparison of the unweighted mean price changes for the home-based telephone substitutions in the published index with the mean price changes for the quality-adjusted substitutions. The mean price change for directly compared substitutions increased dramatically after the reassessment. These substitutions were primarily those wherein only the model number, with or without additional minor price factors, changed. The mean price changes for the quality-adjusted substitutions were mostly negative, with an average downward price change (across all models) of 4.7 percent. The overall mean price change for all substitutions with comparisons (directly compared and quality-adjusted) varied greatly, with the largest difference occurring between the unweighted NPD model and the weighted NPD models. Table 5 compares the mean price changes of the home-based telephone substitutions under the published CPI with those calculated in the four hedonic models.

Table 4. Specification and quality changes in substitution price quotes

Type of change	Number of occurences
Specification change	
Model number change or other, minor specification change	6
Change in quality	12
Quality Change[1]	
Type	4
Brand	4
Digital answering machine	1
Speakerphone	2
Keypad on base and handset (dual keypad)	4
Two-line capability	1
Caller ID	4
Expandable phone system	4
Extra handset(s) included	4
Headset included	1

[1] For each specification listed, more than one could have changed for a given substitution.

On average, there were only nine home-based telephone substitutions each month. The small proportion of substitution price quotes for home-based telephones in the item index limits the impact of quality-adjusting the CPI for home-based telephones. Also, because cellular telephones account for roughly 40 percent of the entire telephone sample used in index calculations, the effect of quality-adjusting only home-based telephones is marginal. Aside from these points, however, applying any one of the home-based telephone models significantly decreases the number of noncomparable (imputed) substitution price quotes, the fewer of which exist in the index, the more likely it is that the index will measure true price change over time.

What's changed?

Since the data presented in this article were collected, new 5.8-GHz telephones have entered the market and the prices of older types of telephones have fallen. New innovations, accompanied by decreasing prices, have nearly driven 46–49-MHz telephones out of existence. Consumers seem to be accepting new technology, such as the 2.4-GHz models, and

Table 5. Mean price changes of substitution price quotes

Total substitutions (= 18)	Published CPI		CPI quality-adjusted index		NPD quality-adjusted index		NPDV quality-adjusted index		NPDQ quality-index adjusted	
	Number	Mean price change (percent)	Number	Mean price change (percent)	Number	Mean price change (percent)	Number	Mean price change (percent)	Number	Mean price change (percent)
Substitutions with comparison (nonlink)	4	–0.65	13	1.48	11	3.19	11	–0.34	11	–0.97
Directly compared substitutions	4	–.65	6	5.74	6	5.74	6	5.74	6	5.74
Quality-adjusted substitutions	0	...	7	–2.17	5	.14	5	–7.62	5	–9.02
Noncomparable (linked)	14	...	5	...	7	...	7	...	7	...

are benefiting from the lower prices. Clear evidence of this trend can be found by comparing the CPI sample in September 2000 with the CPI sample in June 2003.[22] Chart 4 compares the percentage of the sample each type of telephone accounts for, and chart 5 compares the average prices of each type of telephone.

Expandable telephone systems and telephones sold with two or more handsets are becoming very popular, as evidenced by the number of substitute price quotes having those characteristics. The impact of the popularity of cellular telephones on the home-based telephone market is also of interest. Some consumers are now choosing cellular telephones as their primary communication device and abandoning their home-based telephone service altogether.

With regard to changes in the data sources, the CPI sample has grown dramatically since September 2000. The size of the sample for telephones increased from 115 observations in September 2000 to 290 in June 2003, with the number of home-based telephones increasing from 84 to 167 observations. The 2003 figures for home-based telephones are large enough to support the creation of hedonic models without the aid of supplemental samples.

Since September 2000, NPD's data on cordless telephones has changed to include 2.4-GHz digital models and 5.8-GHz models. This modification leads to the assumption that NPD's sample now includes model numbers of those types of telephone. NPD also has improved its control methods for its consumer electronics data and now offers a variety of data delivery options that may be of interest to the Bureau.[23]

AN ARGUMENT CAN BE MADE FOR AND AGAINST the use of either of the two data sources examined in this article in creating hedonic regression models. The CPI sample is relatively small and is not the best item-oriented representation of consumer purchases. Moreover, its characteristic data are not as well defined as the NPD characteristic data. The CPI sample is, however, more representative of the entire market for telephones than are any of the NPD samples, because it includes many more retail outlets than those samples do and because the Bureau has direct control over data collection and maintenance of the CPI sample.[24] In addition, the results of the study presented indicate that the CPI model can be used to make quality adjustments more often than any of the NPD models can. In comparison, NPD data offer a large, representative sample of actual consumer preferences, contain accurate characteristic data, and have options for weighting the data, but suffer a bias in retail outlet representation. Further, the Bureau has little oversight in the upkeep of NPD data. An ideal research sample would meld the coverage and manageability of the CPI sample with the accuracy and robustness of the NPD sample.

In this research, the age of the data examined is somewhat of a cause for concern, because applying the models discussed to quality-adjusting substitutions used in calculating the CPI may not now be appropriate. Doubtless, the parameter estimates of the telephone characteristics have changed as prices for telephones and the value consumers place on quality features have changed since the data were collected. Further research is recommended to determine whether using the by-now-outdated model for quality adjustment is preferable to simply linking substitutions with quality change. Aside from this issue, however, the challenging characteristics of the data sources still exist, and the benefits of each sample continue to define its appeal to researchers.

Currently, BLS researchers still use NPD data in hedonic research studies, and new methods of model creation and application are being considered.[25] The Bureau continues to rely on CPI data to create hedonic models that are used to adjust the prices of apparel items. As the course of BLS hedonic research continues to be charted, the future data needs of the Bureau will evolve, perhaps rendering one data source more suitable than another. Until a single source of satisfactory data is found for its research needs, the Bureau will likely further explore the use of other data providers, in addition to continuing to use its own in-house data. □

Chart 4. Percent of CPI sample by type of telephone, September 2000 and June 2003

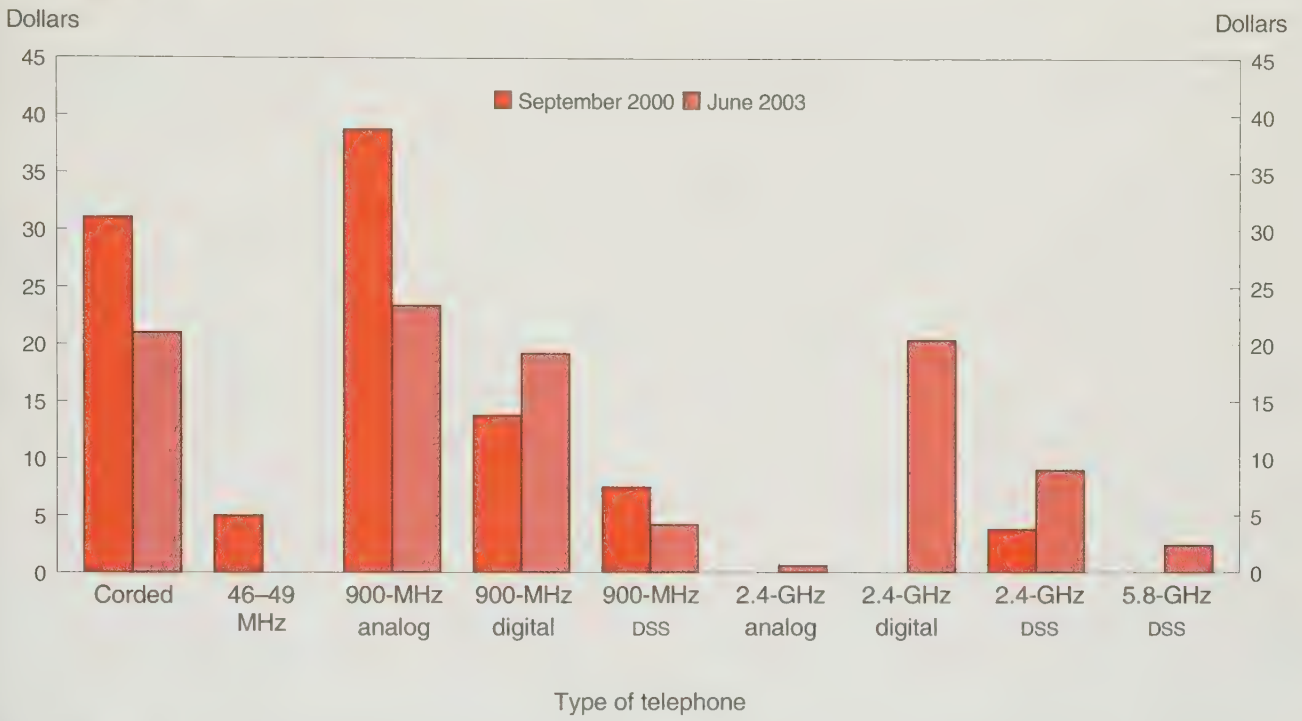
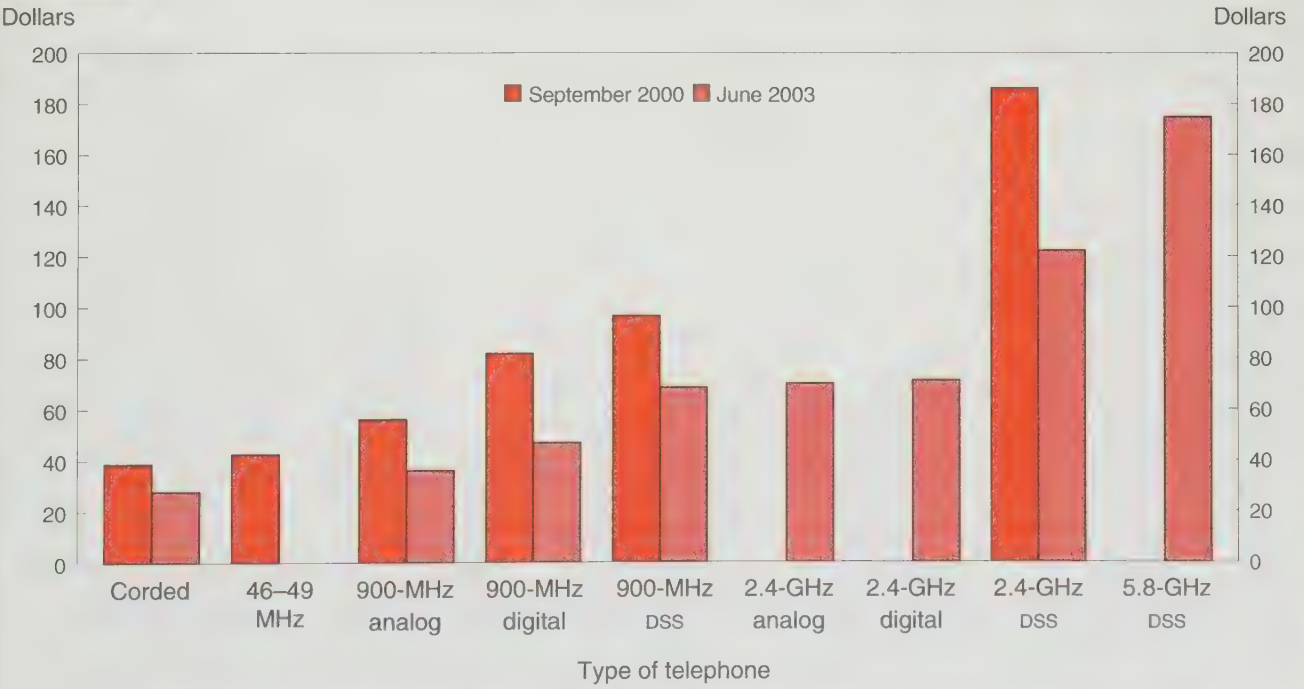


Chart 5. Average price of CPI sample by type of telephone, September 2000 to June 2003[1]



[1] The June 2003 CPI sample included one 2.4-GHz analog telephone; hence, the average price is the price of that model.

Notes

ACKNOWLEDGMENT: The author thanks Nicole Rope, Paul Liegey, and Mary Kokoski for their guidance. The views and opinions expressed herein are solely those of the author and do not necessarily reflect the policies of the Bureau of Labor Statistics.

[1] Most notably, the hedonic models for items of apparel and their continual upkeep. (For more information on early work with hedonic models for apparel items in the CPI, see P. Liegey, "Adjusting Apparel Indexes in the Consumer Price Index for Quality Differences," in *Price Measurements and Their Uses*, National Bureau of Economic Research Studies in Income and Wealth, 57 (Chicago, University of Chicago Press, 1993), pp. 209–26, and "Apparel price indexes: effects of hedonic adjustment," *Monthly Labor Review*, May 1994, pp. 38–45; and N. Shepler "Analysis of Hedonic Regression: Applied to Women's Apparel in the Consumer Price Index," manuscript (Bureau of Labor Statistics, 1994).

[2] Between April and September in each of 1999 and 2000, supplemental research samples were collected for motor vehicle painting, film processing, refrigerators, microwave ovens, videocassette recorders (VCR's), digital video disk (DVD) players, camcorders, telephones, and dental restorations.

[3] See M. Kokoski, K. Waehrer, and P. Rozaklis, "Using Hedonic Methods for Quality Adjustment in the CPI: The Consumer Audio Products Component," BLS working paper (Bureau of Labor Statistics, 2000), for an example of research conducted with this type of data.

[4] A detailed explanation of NPD's aggregation procedure can be found in Kokoski, Waehrer, and Rozaklis, "Using Hedonic Methods," or on NPD's Web site at **www.npd.com**.

[5] The seven model numbers were either conference call stations or extra handsets that are used with expandable telephone systems.

[6] A complete history of cordless telephones is available on the Internet at **www.affordablephones.net/HistoryCordless.htm**. Since the time of this report, the Commission has opened up the 5.8-GHz frequency to cordless telephones as well.

[7] More information on DSS and other cordless telephone technologies can be found on the Internet at **www.howstuffworks.com/question326.htm**.

[8] The next section discusses the weighting methods of the NPD data in further detail.

[9] E. Diewert, "Hedonic Regressions: A Review of Some Unresolved Issues," presentation given at the Seventh Ottawa Group Meeting on Price Indices, Paris, May 2003.

[10] The NPD sample is designed so that each observation represents the average price of a unique model number, as calculated from 1 month's total expenditure and sales volume for that model number.

[11] Kokoski, Waehrer, and Rozaklis, "Using Hedonic Methods."

[12] The CPI rotates approximately 25 percent of its sample each year. It is during this process that the sample is most likely to incorporate the newest and most popular products in the market.

[13] For a more detailed discussion of this survey, see *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, April 1997), chapter 16.

[14] Guides to the characteristic data in each sample are available from the author.

[15] Recommendations on functional forms in the hedonic model literature can be found in Z. Griliches, "Introduction: Hedonic Price Indexes Revisited," in Z. Griliches, ed., *Price Indexes and Quality Change* (Cambridge, MA, Harvard University Press, 1971); and J. Triplett, "The Theory of Hedonic Quality Measurement and Its Use in Price Indexes," BLS staff paper 6, 1971.

[16] See E. V. Georges and P. Liegey, "An Examination Using Hedonic Regression Techniques to Measure the Effects of Quality Adjustment on Apparel Indexes," internal report (Bureau of Labor Statistics, 1988).

[17] Diewert, "Hedonic Regressions."

[18] The experimental models are intended to highlight the variation found in the datasets and are not suggested to be superior to the final models. Part of the reason for the latter claim is that the experimental models do not utilize the available data to their fullest extent.

[19] One of the 13 common brand names did not appear in the 67 common model numbers.

[20] The imputation or "link" methodology is explained in greater detail in the *BLS Handbook of Methods*, chapter 17, p. 186.

[21] An additional benefit of employing hedonic models in evaluating substitutions is that the analyst is able to rely on statistical tools, rather than expert judgment alone, when making comparability decisions. Because of this approach, the percentage of directly compared substitutions increased under the reevaluation.

[22] This type of analysis was not possible with NPD data, because the Bureau does not have access to a current NPD sample. Also, the September 2000 CPI sample is from the official CPI sample used in calculating indexes. The supplemental observations added to increase the sample size for modeling were excluded from the analysis in order to compare official CPI samples.

[23] This information was reported to the Bureau by employees of NPD at a meeting on March 24, 2003. The meeting was scheduled to discuss the future relationship between the two organizations.

[24] Specifically, the Bureau has the ability to find and correct errors in the data in a timely manner by communicating directly with the data collectors. It also has the capability of tailoring its data collection forms to fit the marketplace and its research needs.

[25] Research projects using NPD data for televisions and stereo receivers are currently underway. Ariel Pakes's new method of model estimation and application also is being studied. (See Ariel Pakes, "A Reconsideration of Hedonic Price Indexes with an Application to PC's," *American Economic Review*, December 2003, pp. 1578–96.)

New and emerging occupations

Jerome Pikulinski

According to the OES survey, in 2001, most new and emerging (N&E) occupations were in firms with fewer than 100 employees. No single industry dominated in the creation and growth of these occupations. (See chart 1.) More than one-half of these were distributed among human services, transportation, communications, business and personal services, and a wide variety of wholesale and retail trade activities. Slightly more than half of all N&E occupations were paid in a range of $8.50 to $17. (See chart 2.) No single State or single occupational classification dominated in the creation of N&E occupations; however, healthcare, management, and production occupations were the three most frequent occupation classifications observed. (See chart 3.) Information on specific occupations that are new or emerging is presented below.[1]

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Construction field

- Metal stud framer
- Epoxy floor installers

New building systems, particularly in commercial construction, and increased use of new materials explain the appearance of new occupations in the traditional construction industry.

Educational services

- School diagnosticians
- Adaptive physical education specialist
- Distance learning coordinators
- Poison information specialist
- Poison information technician
- Home-school liaison
- Technology infusion specialist
- Director of technology
- Technology coordinator
- Athletic compliance coordinator

Education continues to create N&E occupations. Some of these arise in connection with the objective of tailoring

Chart 1. N&E employment totals and national employment by employment size

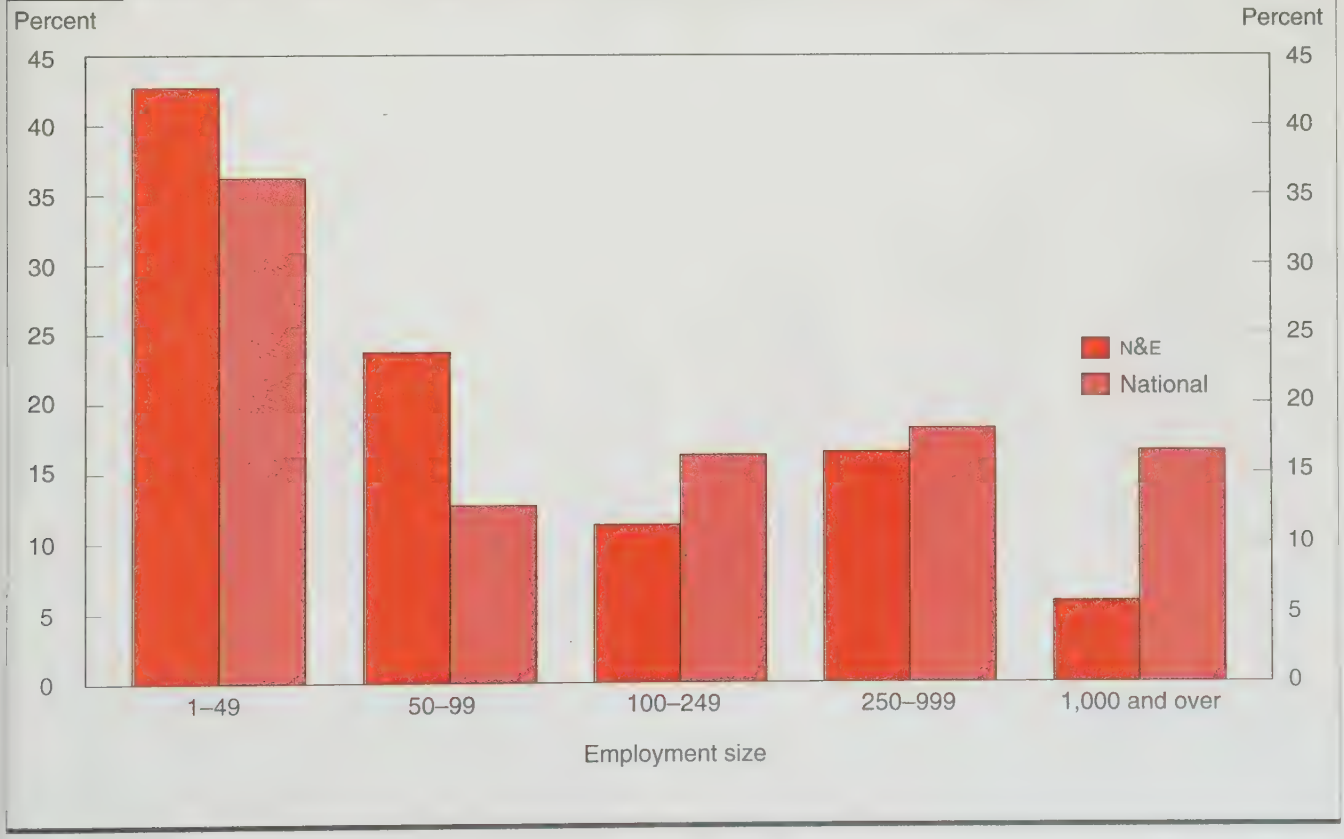


Chart 2. Relative distribution of N&E occupations by survey wage range

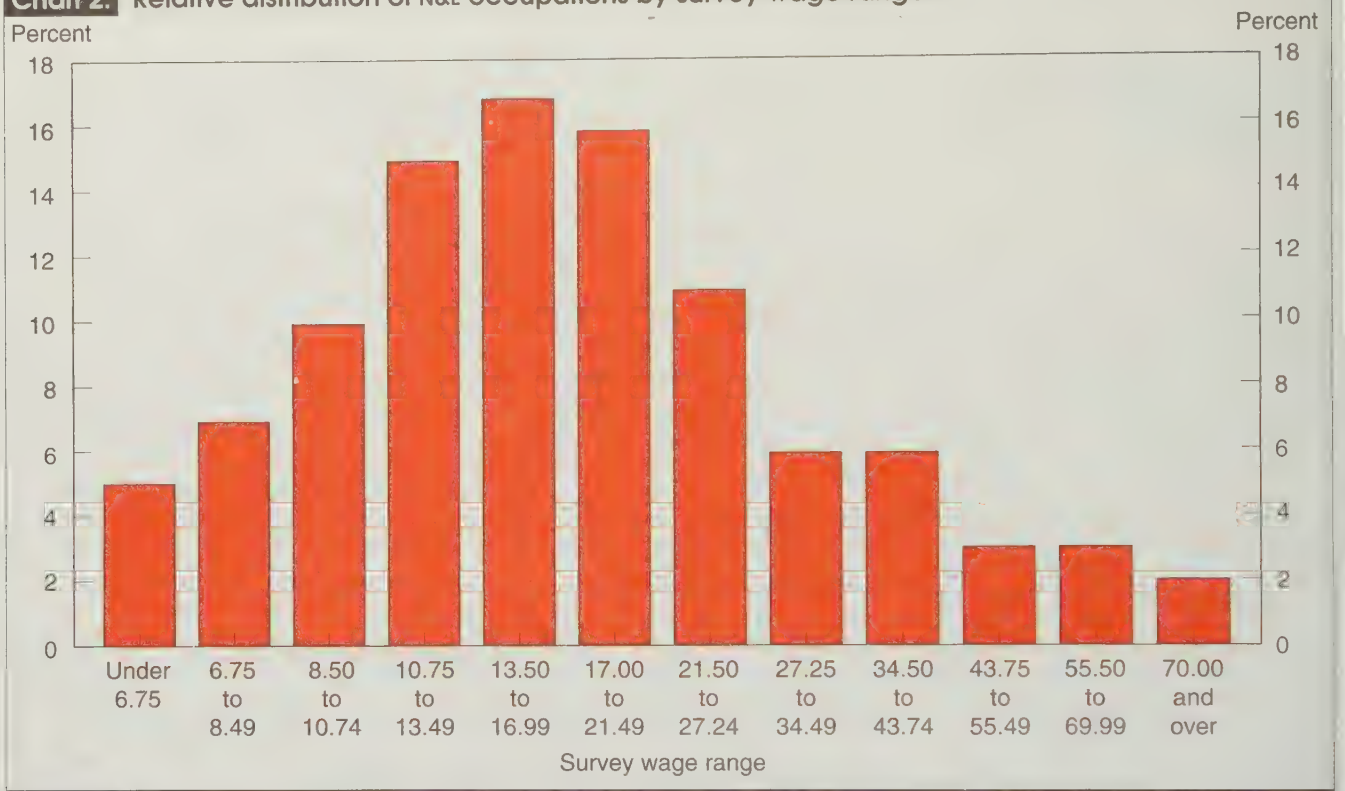
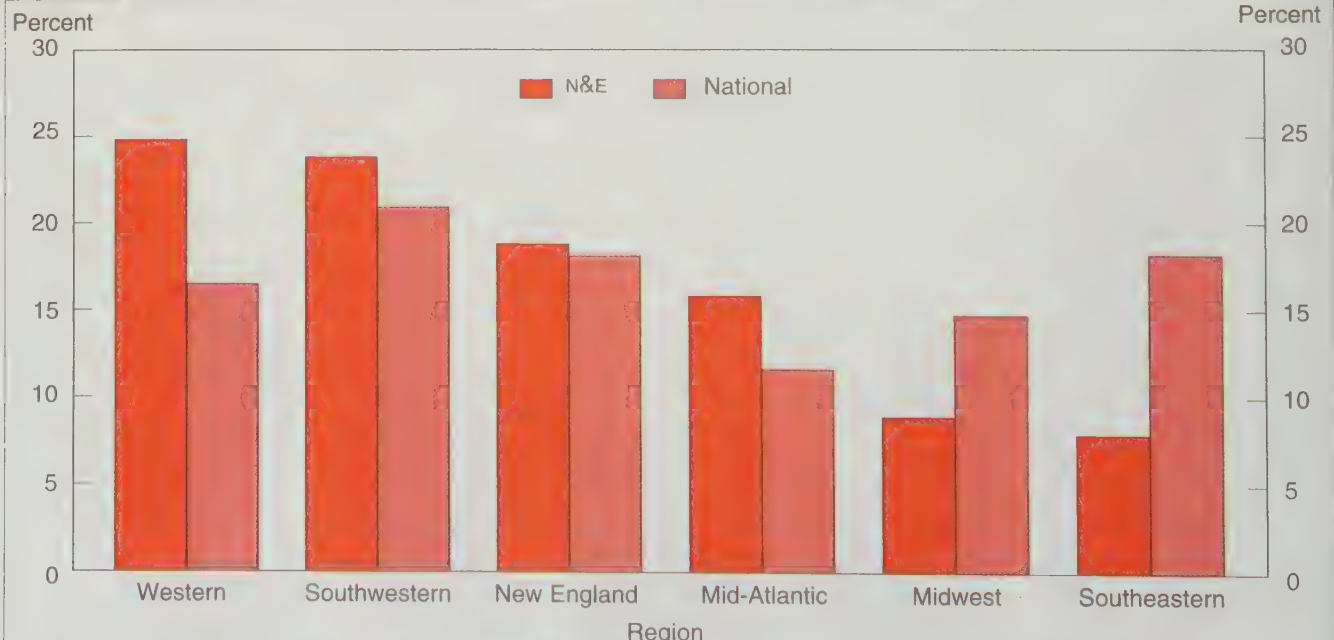


Chart 3. Regional distribution of N&E occupations and national employment



NOTE: Regions are defined as follows: **Western**: Alaska, Arizona, California, Guam, Hawaii, Idaho, Nevada, Oregon, and Washington; **Southwestern**: Arkansas, Colorado, Kansas, Louisiana, Missouri, Montana, New Mexico, Oklahoma, Texas, Utah, and Wyoming; **Midwest**: Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; **Southeastern**: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; **Mid-Atlantic**: Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia, and West Virginia; **New England**: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

educational services to students' special needs. Others deal with the use of improved telecommunications applications to deliver education. Technology and its general uses in education explain the creation of other specialist occupations. Governmental regulations governing athletic and other physical education programs have contributed to other occupations in special education and the administration of athletic programs.

Health services

- Monitor technicians
- Medical specimen couriers
- Patient-care technicians
- Urine sample collectors
- Polysomnographic technicians
- Tissue process technicians
- CRN anesthesiologist
- Tissue & eye bank technicians
- Spiritual care giver
- Tissue service coordinator
- Genetic counselor
- Sanitization technician
- Medical certification clerk
- Plasma processor
- Schedulers for surgical cases
- Night monitors

In the health field, N&E occupations have addressed specialized patient care, continuing responses to advancing medical technologies, improved scheduling of surgical procedures, and alternative medical service delivery approaches. Increased attention has been directed toward management and care of tissue banks. In light of recent genome developments, genetic counselors are appearing upon the medical scene.

Social service

- Bill review nurse
- Adult protective services
- Energy auditor
- HazMat drivers
- Weatherization director
- Director information management
- Cheer workers
- Disaster preparedness staff

There are several groups of occupations in social services — nurses and information management workers employed in new fields; workers helping seniors and others in their homes; and disaster preparedness staff. Nurses continue to be employed in areas other than those directly related to providing clinical care services, primarily in the control of medical costs. In addition, a new occupation for nurses was found in the legal field where they are employed as legal nurse staff specialists. Information management, like nursing, is not a new field, but one that continues to appear in a number of new industry settings. Senior and disabled persons are creating situations calling for cheer workers who provide opportunities for therapeutic interaction and others who investigate charges and complaints of mistreatment. Drivers qualified to deliver hazardous materials may provide oxygen to residences and other service locations. Providing services for the insulation and heating of residences has created occupations in weatherization and heating cost recovery. Finally, increased awareness of disaster preparedness is driving the creation of related positions.

Transportation

- Horsedrawn carriage drivers
- Handicapped bus aides

Clearly carriage drivers is not a new occupation; however, its appearance in connection with the development of urban entertainment districts makes this occupation noteworthy. Attention to the mobility needs of the handicapped has contributed to the creation of aide occupations to assist them on buses.

Service

- Surveillance person
- Producer-Internet provider (ISP)
- Psychic counselors
- Chief software architect
- Match-makers
- Web analyst
- Bar-proof checker
- Digital imagers and modelers
- Customer insight analyst
- Interactive media planner
- Sr. supply chain manager
- Televideo engineer
- Divers-underwater inspectors

A variety of service occupations are appearing. Some deal with security needs. Others reflect cultural attitudes about future uncertainties or finding a mate. Behavioral science applications to marketing are creating other kinds of marketing research jobs. The continuing drive to improve the efficiency of manufacturing operations through improved material management has created specialist positions. Increased attention to docks and ports has created highly specialized underwater inspection jobs.

Special attention is called to the Internet and telecommunications technologies. A variety of new specialized occupations continue to appear as a result of these, such as producers for Internet service provider sites, web analysts that study utilization patterns, and interactive media planners. The pattern in development of these N&E occupations appears to have its parallel in the development of new occupations that followed the introduction of automotive technology. The latter industry has continued to contribute to N&E occupations for more than 100 years. The same pattern seems to be developing within the Internet and telecommunication industries.

Engineering services and manufacturing

- Hazardous material engineer
- Neon glass benders
- Compliance engineer
- Cultured marble caster
- Laser engineer
- Glue mixer

- Optical design engineer
- Perfumers
- Optical engineer
- Translators
- Roof truss designers
- Missile specialists
- Pharmacokineticist
- Truss layout and assembly workers

New materials and processes have contributed to the creation of new occupations while the regulatory concern for the associated environmental and health impacts of these have created additional occupations. Lasers and various optical technologies continue to create new occupations. Manufactured housing components have created both design and production occupations. The drug industry has seen the creation of an occupation, pharmacokineticist, concerned with establishing dosage standards related to the drug availability of retained drug dosages in patients. Some occupations are not new but are once again emerging due to consumer preferences. The cultural resurgence of neon lighting has created the need for neon benders. Market demand for cast marble surfaces has resulted in more work for those who cast it. Finally, the growth of small-scale perfume distributors contributed to the appearance of perfume mixers. Other occupations that are not new but are emerging in engineering and sciences include translators as manufacturers' foreign markets and contacts increased. Maintenance and renewal of the national defense capabilities is associated with the expanded presence of missile specialists. □

Note

[1] For information on the concepts and methodology of identifying new and emerging occupations, as well as detailed data on the findings of the Occupational Employment Statistics Survey, see Jerome Pikulinski, "New and Emerging Occupations," *Occupational Employment and Wages, May 2003* (Bureau of Labor Statistics Bulletin 2567, September 2004).

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Fatal occupational injuries at road construction sites

Stephen Pegula

During the 1995 to 2002 period, 844 workers were killed while working at a road construction site.[1] More than half of these fatalities were attributable to a worker being struck by a vehicle or mobile equipment. The range of these fatal occupational injuries was a low of 93 in 1996 and a high of 124 in 1999, as shown below:

1995 94	1999..... 124
1996 93	2000..... 106
1997 94	2001..... 118
1998 113	2002..... 102

Fatal workplace injuries at road construction sites were first identified as a separate category in the Bureau of Labor Statistics Census of Fatal Occupational Injuries (CFOI) in 1995. Since that time, overall workplace fatalities have generally declined, but fatalities at road construction sites have fluctuated, staying in the low 100's since 1998. Workplace fatalities that occur at a road construction site typically account for 1.5 percent to 2.0 percent of all workplace fatalities annually.

A number of safety measures exist for road construction sites. For instance, the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* provides guidance ranging from the types of signs to use at a road construction site to the proper use of rumble strips.[2] In addition, the Federal Highway Administration offers tips for motorists on traveling safely through road construction sites.[3] As fatal work injuries at road construction sites continue to account annually for a large number of fatal occupational injuries, it becomes even more important to determine the types of workers involved in road construction site fatalities and the events that precipitate the fatalities.[4]

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What is a road construction site?

There are various definitions of what constitutes a road construction site. According to the BLS Census of Fatal Occupational Injuries, a road construction site includes, "...road construction workers and vehicle occupants fatally injured in work zones. Work zones include construction, maintenance, and utility work on a road, street, or highway." The Federal Highway Administration's *Manual on Uniform Traffic Control Devices* gives this definition, "A work zone is an area of a highway with construction, maintenance, or utility work activities. A work zone is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles. It extends from the first warning sign or high-intensity rotating, flashing, oscillating, or strobe lights on a vehicle to the END ROAD WORK sign or the last TTC [temporary traffic control] device."[5]

In this report, only fatal work injuries that occurred at road construction sites as defined by CFOI are included in the analysis. Fatal work injuries at road construction sites were identified in two ways. First, all occupational fatalities that were coded as having occurred at a road construction site were included.[6] Next, the remaining CFOI record set was searched for key variables that might indicate that a fatal work injury did indeed occur at a road construction site, but was not coded as such. These variables include:

- *Keywords.* Records with narratives containing variations on the following words were examined—zone, construction site, worksite, pedestrian, road construction, road site, flag, cone, road crew, highway construction, street construction, barrel, manhole, road repair, painting line, pothole, and sewer.
- *Industry.* All records in which the decedent was employed in Standard Industrial Classification (SIC) 1611—Highway and Street Construction; or SIC 1622—Bridge, Tunnel, and Elevated Highway Construction; and where the fatality occurred on a roadway were examined.
- *Occupation.* All records in which the decedent was employed, per the U.S. Census Bureau Occupation Codes, as a construction laborer (869), operating engineer (844), or paving, surfacing, and tamping equipment operator (594), and where the fatality occurred on a roadway were examined.
- *Worker activity.* All records in which the decedent was, as classified by the CFOI worker activity codes, directing or flagging traffic (150); walking behind a vehicle (162); or resurfacing, blacktopping, etc. (140); and where the fatality occurred on a roadway were examined.
- *Source and secondary source.* All records in which the source or secondary source of the fatal work injury, as classified by the Occupational Injury and Illnesses Classification System, was construction, logging, and mining machinery (codes 3200 to 3299) and where the fatality occurred on a roadway were examined.
- *Event.* All records in which the decedent was killed, as classified in the Occupational Injury and Illnesses Classification System, by being struck by a vehicle or mobile equipment and where the fatality occurred on a roadway were examined.

Records found through this key variable search deemed to have occurred at a road construction site (per the CFOI definition), but not coded as road construction, were recoded for this report.[7]

Limitations of the data. The consistency of the application of the road construction site location code in CFOI could affect the data used for this analysis. An examination of the CFOI narratives shows that the road construction site location code was applied more rigorously later in the study period.[8] More cases in need of recoding were found in the early years of the study than in the latter years. These different applications of the code may skew the data; that is, the increase in fatal work injuries at road construction sites over time may be partly due to the more rigorous application of the location code in the latter years of the study period.

Dangers at road construction sites

Few work environments present the multitude of risks as do road construction sites. For example, vehicles may pass by at high speeds, and the work conditions are constantly changing. Data from the National Highway Traffic Safety Administration show that injuries at road construction sites are a major concern. In 2001, 1,079 people were killed at a road construction site.[9] This figure includes people who were not at work at the time of their death, such as occupants of vehicles passing through road construction sites for nonwork-related reasons.

Highway traffic is a concern for workers at a road construction site, but workers also face a similar danger from vehicles and mobile equipment being used at such sites. As shown later, fatally injured workers at road construction sites were more likely to be struck and killed by construction vehicles and equipment than by automobiles.

To improve the country's roads, Congress passed the Transportation Equity Act for the 21st Century (TEA–21) in 1998. This act provided more than $200 billion dollars for transportation-related programs.[10] This legislation is in the process of being renewed.[11] Improving the country's roads will mean that more road construction sites will be needed. To better protect workers, the Federal Government has taken steps to improve safety in work zones. For example, in 2001, the National Institute for Occupational Safety and Health (NIOSH) published "Building Safer Highway Workzones: Measures to Prevent Worker Injuries From Vehicles and Equipment."[12] In addition, the National Work Zone Safety Information Clearinghouse was created in February of 1998 to improve safety in highway work zones.[13] This clearinghouse provides access to data, training, and safety information for workers at road construction sites.

Data analysis

Demographics. As mentioned earlier, over the 1995–2002 period, 844 workers lost their lives due to fatal work injuries incurred at a road construction site. (See table 1.) The workplace fatality demographic breakdown for this group was very similar to the workplace fatality demographic breakdown for workers in general. Males accounted for 93 percent (787) of the workplace fatalities at a road construction site, compared with 92 percent for all workplace fatalities. White workers accounted for 73 percent (613) of the road construction site workplace fatalities and 73 percent of fatally injured workers overall. Black workers and Hispanic workers represented 10 percent and 14 percent, respectively, of workplace fatalities occurring at road construction sites, and 10 percent and 12 percent of workplace fatalities to all workers.

In terms of age, approximately 70 percent (594) of the decedents were between the ages of 25 and 54. Workers under age 25 made up 10 percent of fatal work injuries incurred at a road construction site and 11 percent of fatal work injuries overall. Workers age 55 and older accounted for 20 percent of the fatal work injuries incurred at a road construction site and 22 percent of workplace fatalities overall. Workers killed at a road construction site were largely working for wage and salary; approximately 96 percent (811) of the decedents were wage/salary workers, while only 4 percent were self-employed. For overall workplace fatalities from 1995 to 2002, 80 percent of the decedents were wage/salary workers and 20 percent were self-employed.

Table 1. Worker fatalities at road construction sites over the 1995–2002 period, by selected demographic characteristics

Characteristics	Number of fatalities
Total	844
Employee status:	
Wage and salary workers[1]	811
Self-employed[2]	33
Gender:	
Male	787
Female	57
Age:	
18 to 19 years	17
20 to 24 years	63
25 to 34 years	185
35 to 44 years	213
45 to 54 years	196
55 to 64 years	130
65 years and older	36
Race or ethnic origin:[3]	
White	613
Black or African American	86
Hispanic or Latino[4]	118

[1] May include volunteers and other workers receiving compensation.

[2] Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships.

[3] The categories "White" and "Black or African American" do not include "Hispanic or Latino" persons.

[4] Persons identified as Hispanic may be of any race.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Totals for major categories may include subcategories not shown separately.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Table 2. Worker fatalities at road construction sites over the 1995–2002 period, by State of incident

State of incident	Number of fatalities
Texas	71
California	51
Florida	46
Ohio	46
Pennsylvania	44
New York	40
Indiana	38
Illinois	36
Virginia	36
Georgia	32

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Table 3. Worker fatalities at road construction sites over the 1995–2002 period, by event or exposure

Event or exposure	Number of fatalities
Transportation incidents	693
Highway	137
Collision between vehicles, mobile equipment	83
Moving in the same direction	29
Moving and standing vehicle, mobile equipment in roadway	29
Noncollision	36
Jack-knifed or overturned–no collision	27
Nonhighway	43
Noncollision accident	41
Overturned	27
Worker struck by vehicle, mobile equipment	509
Worker struck by vehicle, mobile equipment in roadway	363
Worker struck by vehicle, mobile equipment on side of road	119
Contact with objects and equipment	85
Struck by object	44
Falls	28
Exposure to harmful substances and environments	33
Contact with electric current	23
Contact with overhead power lines	20

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Totals for major categories may include subcategories not shown separately.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Table 4. Worker fatalities at road construction sites over the 1995–2002 period, by industry and occupation

Characteristics	Number of fatalities
Industry:	
Private industry	688
Construction	566
Heavy construction, except building	467
Highway and street construction	340
Heavy construction, except highway	125
Bridge, tunnel, and elevated highway	70
Water, sewer, and utility lines	34
Special trade contractors	90
Transportation and public utilities	52
Trucking and warehousing	44
Trucking and courier services, except air	44
Trucking, except local	34
Services	34
Government[1]	156
State government	83
Construction	57
Heavy construction, except building	56
Highway and street construction	55
Public administration	24
Local government	70
Construction	38
Heavy construction, except building	38
Highway and street construction	37
Public administration	29
Occupation:	
Managerial and professional specialty	52
Precision production, craft, and repair	183
Construction trades	170
Supervisors, construction occupations	55
Construction trades, except supervisors	115
Paving, surfacing, and tamping equipment operators	27
Operators, fabricators, and laborers	558
Transportation and material moving occupations	186
Motor vehicle operators	85
Truck drivers	83
Material moving equipment operators	101
Operating engineers	54
Grader, dozer, and scraper operators	27
Handlers, equipment cleaners, operators, and laborers	359
Construction laborers	335

[1] Includes fatalities to workers employed in governmental organizations regardless of industry.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Totals for major categories may include subcategories not shown separately.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Texas had the largest number of workplace fatalities at road construction sites; 8 percent (71) of the workplace fatalities occurred in this State. (See table 2, page 45.) Other States with a large number of these types of occupational fatalities included California (6 percent), Florida (5 percent), Ohio (5 percent), Pennsylvania (5 percent), and New York (5 percent).

Event or exposure. More than four-fifths (693) of occupational fatalities that occur at a road construction site were caused by transportation incidents. Most prevalent were workers who were struck by a vehicle or mobile equipment, who accounted for approximately 60 percent (509) of all fatal work injuries that occurred at a road construction site. (See table 3, page 45 .) Other fatal events of note included highway collisions between vehicles or mobile equipment (10 percent of all fatal work injuries at a road construction site), being struck by an object (5 percent), and falls (3 percent).

Industry and occupation. In the private sector, 82 percent (566) of the road construction site decedents worked in construction. (See table 4, page 45.) Most of these construction fatalities (60 percent) were incurred by workers in highway and street construction. No other major industry group in the private sector accounted for more than 8 percent of the fatalities. Government workers accounted for 18 percent (156) of the workplace fatalities that occurred at a road construction site. These fatalities were incurred primarily by State and local government workers. As in the private sector, decedents working for a government entity were most likely to be working in highway and street construction.

Among occupations, 40 percent (335) of the decedents worked as construction laborers. (See table 4, page 45.) The remaining decedents were employed in the construction trades (20 percent), as material moving equipment operators (12 percent), and as truck drivers (10 percent), among other occupations.[14]

Struck by vehicle or mobile equipment incidents. Approximately 60 percent (509 fatalities) of the occupational fatalities that occurred at road construction sites were the result of workers being struck by vehicles or mobile equipment. Construction laborers incurred 49 percent (247) of these fatalities. In addition, 48 percent (242) of the decedents were working in the private highway and street construction industry. Geographically, these incidents were most likely to occur in Texas (9 percent, or 46 fatalities, of all struck by vehicle or mobile equipment workplace fatalities at road construction sites), Florida (7 percent), California (6 percent), Pennsylvania (6 percent) and Ohio (6 percent). (See table 5.)

For fatalities for which the time of incident was available, 29 percent of the decedents who were struck by vehicles or mobile equipment at a road construction site were struck between the hours of 9:00 a.m. and 11:59 a.m., and 17 percent were struck between 6:00 a.m. and 8:59 a.m. These percentages were larger than those for all fatal occupational injuries, where 23 percent occurred between 9:00 a.m. and 11:59 a.m., and 13 percent occurred between 6:00 a.m. and 8:59 a.m. Fatalities at road construction sites from being struck by a vehicle or mobile equipment also tend to be more clustered in the daylight hours (6:00 a.m. to 5:59 p.m.) than fatalities in general. Approximately 83 percent of the fatal work injuries incurred by workers at road construction sites from being struck by a vehicle or mobile equipment occurred in daylight hours, while 75 percent of all fatal work injuries occurred during these hours.

In struck by vehicle or mobile equipment cases, the vehicle or mobile equipment that struck the worker is the source of the fatal injury. In 54 percent (274) of the cases, a truck struck the worker. Of these trucks, 36 percent were dump trucks, 21 percent were pickup trucks, and 19 percent were semitrailer, tractor trailer, or trailer trucks. Automobiles were the source in 28 percent (143) of all cases of struck by vehicle or mobile equipment at road construction sites. Finally, construction machinery, which includes backhoes, levelers, planers, scrapers, steamrollers, and road pavers, accounted for 11 percent (56) of the struck by vehicle or mobile equipment fatalities. (See table 6.)

Note that workers at a road construction site faced a greater likelihood of being struck by a construction vehicle or construction equipment than of being struck by a car. While 28 percent of the workers who were killed in struck by vehicle or mobile equipment incidents at a road construction site were struck by automobiles, 31 percent were struck by dump trucks or construction machinery.

With respect to the activity the decedent was performing when he or she was struck by a vehicle or mobile equipment, 29 percent (147) were constructing, repairing, or cleaning. Approximately 28 percent were walking in or near a roadway when they were struck,

Table 5. Worker fatalities at road construction sites over the 1995–2002 period, resulting from being struck by a vehicle or mobile equipment, by State of incident

State of incident	Number of fatalities
Texas	46
Florida	37
California	33
Pennsylvania	30
Ohio	29
Illinois	23
Georgia	22
New York	20
Virginia	18
North Carolina	17

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Table 6. Worker fatalities at road construction sites over the 1995–2000 period, resulting from being struck by a vehicle or mobile equipment, by source of the fatality

Source	Fatalities	
	Number	Percent
All struck by vehicle or mobile equipment fatalities[1]	509	100
Vehicles	446	88
Highway vehicle-motorized	441	87
Automobile	143	28
Truck	274	54
Dump truck	100	20
Pickup truck	57	11
Semi-trailer, tractor trailer, or trailer truck	53	10
Van	14	3
Machinery	63	12
Construction, logging, and mining machinery	56	11
Excavating machinery	21	4
Backhoes	9	2
Bulldozers	6	1
Road grading and surfacing machinery	30	6
Graders, levelers, planers, and scrapers	20	4
Steam rollers and road pavers	6	1

[1] In struck by vehicle or mobile equipment fatalities, the source of the fatality is the vehicle or mobile equipment that struck the decedent.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Totals for major categories may include subcategories not shown separately.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Table 7. Worker fatalities at road construction sites over the 1995–2002 period, resulting from being struck by a vehicle or mobile equipment, by worker activity

Worker activity	Fatalities	
	Number	Percent
All struck by vehicle or mobile equipment fatalities	509	100
Vehicular and transportation operation	278	55
Resurfacing and blacktopping	38	7
Directing or flagging traffic	93	18
Walking in or near roadway	141	28
Using or operating tools or machinery	17	3
Constructing, repairing, or cleaning	147	29
Construction, assembling, or dismantling	66	13
Constructing or assembling	10	2
Installing	14	3
Dismantling or removing	8	2
Repairs or maintenance	30	6
Repairing	17	3
Maintenance	9	2
Inspecting or checking	18	4
Painting, etc.	11	2
Material handling operations	12	2
Physical activity, not elsewhere classified[1]	46	9

[1] Includes walking, sitting, running, and climbing ladders or stairs.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Totals for major categories may include subcategories not shown separately.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

slightly more than 18 percent were directing or flagging traffic, and 7 percent were resurfacing or blacktopping. (See table 7.) □

Notes

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[1] Preliminary data for 2002 are used in this analysis.

[2] For more information on the Manual on Uniform Traffic Control Devices, see **http://mutcd.fhwa.dot.gov/**

[3] See **http://safety.fhwa.dot.gov/roaduser/wzs.htm**

[4] For an examination of worker fatalities in highway work zones from 1992 to 1998, see pages 5 and 6 of *Building Safer Highway Work Zones: Measures to Prevent Worker Injuries from Vehicles and Equipment*, on the Internet at: **http://www.cdc.gov/niosh/pdfs/01-128.pdf**

[5] See **http://mutcd.fhwa.dot.gov/pdfs/2003r1/Ch6A-E.pdf**, page 6C–2.

[6] CFOI uses a location code of 65 to designate fatal work injuries that occur at road construction sites.

[7] Ascertaining whether a record should be recoded as a road construction fatality was sometimes complicated by vague and/or incomplete narratives. For the borderline cases, the determination as to whether a fatality occurred at a road construction site was made by examining the combination of the narrative, industry, occupation, and worker activity. Because there are various definitions of what constitutes a road construction site, different people may make different determinations as to whether a fatal work injury occurred at a road construction site. For this analysis, the reclassifications were made by the author with input from CFOI staff. These reclassifications were based on a consistent set of requirements formulated by the author and CFOI staff.

[8] The examination of the narratives should mitigate the problems arising from the application of the location code. The breakdown for added records is as follows:

Years	*Records added*	*Years*	*Records added*
1995	63	1999	53
1996	47	2000	43
1997	36	2001	45
1998	37	2002	24

In total, 496 records were included because the location code was 65-road construction. An additional 348 were added after examining records.

[9] See Table 61 in **http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSFAnn/TSF2001.pdf**

[10] Camille Villanova, "Looking for Safety Zones," *Job Safety and Health Quarterly*, Vol. 11, No. 3, p. 19. For more information on TEA–21, see **http://www.fhwa.dot.gov/tea21/**

[11] For more information on the reauthorization on TEA–21, see **http://www.fhwa.dot.gov/reauthorization/index.htm**

[12] See **http://www.cdc.gov/niosh/pdfs/01-128.pdf**

[13] The National Work Zone Safety Information Clearinghouse was the product of collaboration between the American Road & Transportation Builders Association (ARTBA) and the Federal Highway Administration. Now, it is run jointly by ARTBA and the Texas Transportation Institute. For more information, access **http://wzsafety.tamu.edu** and **http://wzsafety.tamu.edu/files/brochure.stm**

[14] Material moving equipment operators include occupations such as operating engineers; excavating and loading machine operators; and grader, dozer, and scraper operators.

The business cycle and earnings and income inequality

Economists and other analysts generally agree that inequality in both earnings and income increased over the last 40 years. Moreover, such inequality tended to accelerate in periods of economic downturn during that span. Together, these facts have led to renewed interest in the extent to which earnings and income inequality are affected by the business cycle, especially recessions. In a recent study, "Earnings Inequality and the Business Cycle," NBER Working Paper 10469, economists Gadi Barlevy (Federal Reserve Bank of Chicago) and Daniel Tsiddon (Tel Aviv University) examine this issue.

The authors develop a model in which long-term trends in earnings and income inequality are amplified during recessions, regardless of whether inequality is generally increasing or decreasing. In other words, the model predicts that during periods when inequality is growing, recessions will tend to exacerbate that trend and inequality will *increase* more rapidly. However, during periods when inequality is decreasing, recessions will tend to accelerate that trend as well, and inequality will *decrease* more rapidly. To test their model empirically, the authors examine data from the entire 20th century. They find that, indeed, "downturns are associated with more rapid growth in inequality in [long-term] periods of rising inequality but with more rapid reductions in inequality in periods of falling inequality."

Barlevy and Tsiddon provide some explanations for their findings. They argue, for example, that the U.S. economy periodically experiences "waves of drastic technological innovation," such as the introduction of electricity and increased mechani-zation of production that occurred in the early 20th century, and the widespread computerization that occurred later in the century. Individuals differ in their ability to incorporate the new technology. As a result, they differ in their ability to take advantage of it—some are able to benefit from the new technology relatively quickly, while others are slower to absorb it and thus lose ground, economically, relative to their peers. Eventually, however, these "laggards" begin to catch up as they embrace the new technology. Thus, technological innovations first tend to increase earnings inequality, but in the longer term they tend to decrease it—at least until the next innovation comes along.

In their empirical analysis, the authors "begin with the one episode of declining earnings inequality during the past century," the period from the late 1920s to the early 1950s. They then examine two periods of increasing earnings inequality—the early 1900s to the late 1920s and the late 1960s to "at least the end of the century." The empirical findings support the predictions of their model, which attributes growth in earnings inequality to "technological upheavals." Inequality increased in the early 20th century due to the introduction of electricity and mechanized production. It decreased during the middle period, as the benefits of the new technology spread throughout the economy. Then, in the latter portion of the century, earnings inequality increased again with the widespread computerization of U.S. industry.

Siblings and earnings inequality

In the December 2004 Chicago Fed Letter, economist Bhashkar Mazumder presents new research on siblings and earnings inequality. His essay, "What similarities between siblings tell us about inequality in the U.S.," considers the question, "How important is family background in determining economic success in the United States?"

To address this question, Mazumder analyzes data from the National Longitudinal Survey of Youth (NLSY). The dataset consists of a sample of more than 12,000 men and women who were between ages 14 and 22 in 1979. (This longitudinal survey is ongoing; see **http://www.bls.gov/nls/nlsy79.htm** for more information). The sample includes more than 4,000 pairs of siblings.

For men, Mazumder estimates that the correlation among siblings in annual earnings is 0.49 and the correlation for hourly wages is 0.54. For women, he notes that the results tend to be lower, which he explains is "not surprising given the more varied labor force participation patterns for younger women."

Mazumder concludes that about half of earnings inequality in the United States is accounted for by family background. He writes that his finding about the correlation among siblings in economic outcomes "suggests that inequalities between families persist strongly from generation to generation and that the U.S. is a less mobile society than is commonly believed."

We are interested in your feedback on this column. Please let us know what you have found most interesting and what essential readings we may have missed. Write to: Executive Editor, *Monthly Labor Review*, Bureau of Labor Statistics, Washington, DC 20212; fax: (202) 691-5899, or e-mail: mlr@bls.gov

Israel's economy

The Israeli Economy, 1985–1998: From Government Intervention to Market Economics. Edited by Avi Ben-Bassat. Cambridge, MA, Massachusetts Institute of Technology, 2002, 514 pp., $40/cloth.

As editor, Avi Ben-Bassat presents a series of 14 essays based on a 1996 research project by various Israeli academic and financial institutions as well as the International Monetary Fund, plus his own contribution in the form of an introductory essay discussing the obstacles Israel faced in its transformative efforts. These essays detail efforts to reform Israel from a poorly performing centralized command economy to a dynamic market economy. *The Israeli Economy, 1985–1998* explores the obstacles faced and transformations experienced during this transition period. These essays describe the fiscal and monetary changes, changes in the markets, and external developments that allowed Israel to move from a situation where it faced 400 percent inflation to relative stability and growth.

After the intensified conflicts of the 1967 Six Day War and the 1973 Yom Kippur War, Israel reacted by centralizing decisionmaking and controlling resources. These conflicts resulted in the growth of the public sector and the public deficit. Lax fiscal discipline and the growth of government, due to increased defense expenditures and subsidies to businesses, resulted in severe economic decline. After a relaxation in the intensity of the Israeli-Arab conflict during the latter part of the 1970s and early 1980s, Israel was in a better position to address the economic difficulties it faced in the forms of high inflation and almost nonexistent growth of gross domestic product (GDP).

To address these economic difficulties, Israeli policies needed some serious reform. How Israel addressed its reform program is described in six major headings: fiscal policy; monetary policy; financial market reforms; reforms in the goods and services markets; immigration and the labor market; and changes in growth, branch structure, and income distribution.

Changes in fiscal policy are explained in the first essay showing efforts at implementing tight fiscal discipline and a reduction in the size of government. Because of fiscal reform, three areas saw the greatest change in an effort to reduce expenditures: defense spending; subsidies to the business sector and interest payments; and welfare transfers to households. Another part of these efforts was the drive to reduce public expenditures through the elimination of interest payments on external debts that approached 80 percent of GDP.

Reform of monetary policy, as part of these stabilization program efforts, is addressed in three essays: reform of the financial system; disinflation from 1985 to 1998; and the international view of Israeli inflation. Israel's greatest accomplishment was to achieve disinflation. Liberalization is shown to be a key to enhancing competition in the financial markets in this accomplishment, as well as the Bank of Israel's (BoI) increased independence and use of interest rates as an instrument of monetary policy. These measures were fairly successful when combined with a reduction in the government budget deficit through fiscal discipline. The program did not work as well as it could have due to political pressures; changes in employment due to increased immigration from the former Soviet Union; and Israel's inability to reach a consensus about the process as a whole, shown by a conflict between the BoI and the Treasury.

Achieving disinflation proved a difficult process when compared to nine other countries—all of which went from high inflation to lowered inflation levels with varying results. Despite set-back periods of double-digit inflation rates, Israel, by 1998, was experiencing mid single-digit rates. Liberalization of financial markets also saw mixed results, but in general the outcome has been positive.

Liberalization of financial markets has allowed many projects to proceed when previously they would not have done so under government-provided funding, while others of less likely profit have been dropped. Because of more reliance for funding from the Tel Aviv Stock Exchange and less from bank debt or government-provided credits, credit crunches and reduced output volatility have been reduced over the business cycle, and results of this program are fairly solid.

Pension reform, however, is a work in progress. Balancing social needs of pensioners against relieving the younger generation from the burden of a large share of income support is difficult. The solution is to accumulate more pension savings while workers are young, thus sharing the burden of risk between the generations.

Fortunately for these workers, the unemployment rate dropped from 12 percent to 6 percent during the 1990s. This effect was produced by changes in immigration and liberalization of the goods and services market. These two issues are addressed separately, but are closely intertwined. While immigration increased during the 1990s due to the fall of the Soviet Union and an increase in migrants from Eastern Europe, the labor market grew as well. With the diminishment of economic centralization came growth in the labor market as industries increased efficiency efforts. In the first half of the 1990s, growth was greatest in exposed industries that were open to competition from imported items and required lower skills. In the second half, growth was seen most in more sophisticated industries that required skilled workers.

Changes in capital accumulation and increased productivity resulted in changes to the labor market. It also re-

sulted in challenging questions of income distribution. While Israel was growing in a dynamic market economy with immigration increases, income inequalities were also growing. The approach to these questions, and how Israel is going to answer them, is addressed in the book's final chapters.

A constant theme emerges as the authors describe the complex, and often contradictory, events and efforts to reform. Sectors and industries that are opened to competition thrive and become more efficient, providing benefits to both labor and consumers. Efficiency aids efforts to globalize Israel's economy, though it also is more exposed to external crises. Another recurring issue of many essays is that success is not seen in every effort to liberalize, as is the case in some public utilities.

Because this book is a collection of studies analyzing one country going through one process, there are some redundancies. This is unavoidable because this one process is complex and has many levels that are affected by the same events. The essays provide a nonpartisan view of an economic system in transformation, and a good argument for market solutions versus dirigiste philosophies toward providing a healthy economic environment.

—Scott Berridge

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This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force; employment; unemployment; labor compensation; consumer, producer, and international prices; productivity; international comparisons; and injury and illness statistics. In the notes that follow, the data in each group of tables are briefly described; key definitions are given; notes on the data are set forth; and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of current and past experiences. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted data appear in tables 1–14, 17–21, 48, and 52. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 2004 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1 12–14, and 17 were revised in the March 2004 *Review*. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 54 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 x 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2490. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 919. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule appearing on the back cover of this issue.

More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in the Bureau's monthly publication, *Employment and Earnings*. Historical unadjusted and seasonally adjusted data from the household survey are available on the Internet:

http://www.bls.gov/cps/

Historically comparable unadjusted and seasonally adjusted data from the establishment survey also are available on the Internet:

http://www.bls.gov/ces/

Additional information on labor force data for areas below the national level are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95*, BLS Bulletin 2466. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms; Employee Benefits in Small Private Establishments;* and *Employee Benefits in State and Local Governments*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the 1998 revision of the CPI, see the December 1996 issue of the *Monthly Labor Review*. Additional data on international prices appear in monthly news releases.

Listings of industries for which productivity indexes are available may be found on the Internet:

http://www.bls.gov/lpc/

For additional information on international comparisons data, see *International Comparisons of Unemployment*, Bulletin 1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry*, a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

n.e.c. = not elsewhere classified.
n.e.s. = not elsewhere specified.
p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
r = revised. Generally, this revision reflects the availability of later data, but also may reflect other adjustments.

Comparative Indicators

(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in

table 2. Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

Employment and Unemployment Data

(Tables 1; 4–29)

Household survey data

Description of the series

Employment data in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy. The **civilian labor force participation** rate is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ratio** is employment as a percent of the civilian noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*. For a discussion of changes introduced in January 2003, see "Revisions to the Current Population Survey Effective in January 2003" in the February 2003 issue of *Employment and Earnings* (available on the BLS Web site at: **http://www.bls.gov/cps/rvcps03.pdf**).

Effective in January 2003, BLS began using the X-12 ARIMA seasonal adjustment program to seasonally adjust national labor force data. This program replaced the X-11 ARIMA program which had been used since January 1980. See "Revision of Seasonally Adjusted Labor Force Series in 2003," in the February 2003 issue of *Employment and Earnings* (available on the BLS Web site at **http:www.bls.gov/cps/cpsrs.pdf**) for a discussion of the introduction of the use of X-12 ARIMA for seasonal adjustment of the labor force data and the effects that it had on the data.

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical seasonally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

FOR ADDITIONAL INFORMATION on national household survey data, contact the Division of Labor Force Statistics: (202) 691–6378.

Establishment survey data

Description of the series

Employment, hours, and earnings data in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 160,000 businesses and government agencies, which represent approximately 400,000 individual worksites and represent all industries except agriculture. The active CES sample covers approximately one-third of all nonfarm payroll workers. Industries are classified in accordance with the 2002 North American Industry Classification System. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th day of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted

in each establishment which reports them.

Production workers in the goods-producing industries cover employees, up through the level of working supervisors, who engage directly in the manufacture or construction of the establishment's product. In private service-providing industries, data are collected for nonsupervisory workers, which include most employees except those in executive, managerial, and supervisory positions. Those workers mentioned in tables 11–16 include production workers in manufacturing and natural resources and mining; construction workers in construction; and nonsupervisory workers in all private service-providing industries. Production and nonsupervisory workers account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received, and are different from standard or scheduled hours. **Overtime hours** represent the portion of average weekly hours which was in excess of regular hours and for which overtime premiums were paid.

The **Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Table 17 provides an index on private nonfarm employment based on 278 industries, and a manufacturing index based on 84 industries. These indexes are useful for measuring the dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The March 2003 benchmark was introduced in February 2004 with the release of data for January 2004, published in the March 2004 issue of the *Review.* With the release in June 2003, CES completed a conversion from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS) and completed the transition from its original quota sample design to a probability-based sample design. The industry-coding update included reconstruction of historical estimates in order to preserve time series for data users. Normally 5 years of seasonally adjusted data are revised with each benchmark revision. However, with this release, the entire new time series history for all CES data series were re-seasonally adjusted due to the NAICS conversion, which resulted in the revision of all CES time series.

Also in June 2003, the CES program introduced concurrent seasonal adjustment for the national establishment data. Under this methodology, the first preliminary estimates for the current reference month and the revised estimates for the 2 prior months will be updated with concurrent factors with each new release of data. Concurrent seasonal adjustment incorporates all available data, including first preliminary estimates for the most current month, in the adjustment process. For additional information on all of the changes introduced in June 2003, see the June 2003 issue of *Employment and Earnings* and "Recent changes in the national Current Employment Statistics survey," *Monthly Labor Review,* June 2003, pp. 3–13.

Revisions in State data (table 11) occurred with the publication of January 2003 data. For information on the revisions for the State data, see the March and May 2003 issues of *Employment and Earnings*, and "Recent changes in the State and Metropolitan Area CES survey," *Monthly Labor Review*, June 2003, pp. 14–19.

Beginning in June 1996, the BLS uses the X-12-ARIMA methodology to seasonally adjust establishment survey data. This procedure, developed by the Bureau of the Census, controls for the effect of varying survey intervals (also known as the 4- versus 5-week effect), thereby providing improved measurement of over-the-month changes and underlying economic trends. Revisions of data, usually for the most recent 5-year period, are made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review).* When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Fourth-quarter data are published as preliminary in January and February and as final in March.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Current Employment Statistics: (202) 691–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions, and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act. Seasonally adjusted unemployment rates are presented in table 10. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for all States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates are revised to new population controls, usually with publication of January estimates, and benchmarked to annual average CPS levels.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 691–6392 (table 10) or (202) 691–6559 (table 11).

Quarterly Census of Employment and Wages

Description of the series

Employment, wage, and establishment data in this section are derived from the quarterly tax reports submitted to State employment security agencies by private and State and local government employers sub-

ject to State unemployment insurance (UI) laws and from Federal, agencies subject to the Unemployment Compensation for Federal Employees (UCFE) program. Each quarter, State agencies edit and process the data and send the information to the Bureau of Labor Statistics.

The Quarterly Census of Employment and Wages (QCEW) data, also referred as ES-202 data, are the most complete enumeration of employment and wage information by industry at the national, State, metropolitan area, and county levels. They have broad economic significance in evaluating labor market trends and major industry developments.

Definitions

In general, the Quarterly Census of Employment and Wages monthly employment data represent the number of **covered workers** who worked during, or received pay for, the pay period that included the 12th day of the month. **Covered private industry employment** includes most corporate officials, executives, supervisory personnel, professionals, clerical workers, wage earners, piece workers, and part-time workers. It excludes proprietors, the unincorporated self-employed, unpaid family members, and certain farm and domestic workers. Certain types of nonprofit employers, such as religious organizations, are given a choice of coverage or exclusion in a number of States. Workers in these organizations are, therefore, reported to a limited degree.

Persons on paid sick leave, paid holiday, paid vacation, and the like, are included. Persons on the payroll of more than one firm during the period are counted by each UI-subject employer if they meet the employment definition noted earlier. The employment count excludes workers who earned no wages during the entire applicable pay period because of work stoppages, temporary layoffs, illness, or unpaid vacations.

Federal employment data are based on reports of monthly employment and quarterly wages submitted each quarter to State agencies for all Federal installations with employees covered by the Unemployment Compensation for Federal Employees (UCFE) program, except for certain national security agencies, which are omitted for security reasons. Employment for all Federal agencies for any given month is based on the number of persons who worked during or received pay for the pay period that included the 12th of the month.

An **establishment** is an economic unit, such as a farm, mine, factory, or store, that produces goods or provides services. It is typically at a single physical location and engaged in one, or predominantly one, type of economic activity for which a single industrial classification may be applied. Occasionally, a single physical location encompasses two or more distinct and significant activities. Each activity should be reported as a separate establishment if separate records are kept and the various activities are classified under different NAICS industries.

Most employers have only one establishment; thus, the establishment is the predominant reporting unit or statistical entity for reporting employment and wages data. Most employers, including State and local governments who operate more than one establishment in a State, file a Multiple Worksite Report each quarter, in addition to their quarterly UI report. The Multiple Worksite Report is used to collect separate employment and wage data for each of the employer's establishments, which are not detailed on the UI report. Some very small multi-establishment employers do not file a Multiple Worksite Report. When the total employment in an employer's secondary establishments (all establishments other than the largest) is 10 or fewer, the employer generally will file a consolidated report for all establishments. Also, some employers either cannot or will not report at the establishment level and thus aggregate establishments into one consolidated unit, or possibly several units, though not at the establishment level.

For the Federal Government, the reporting unit is the **installation**: a single location at which a department, agency, or other government body has civilian employees. Federal agencies follow slightly different criteria than do private employers when breaking down their reports by installation. They are permitted to combine as a single statewide unit: 1) all installations with 10 or fewer workers, and 2) all installations that have a combined total in the State of fewer than 50 workers. Also, when there are fewer than 25 workers in all secondary installations in a State, the secondary installations may be combined and reported with the major installation. Last, if a Federal agency has fewer than five employees in a State, the agency headquarters office (regional office, district office) serving each State may consolidate the employment and wages data for that State with the data reported to the State in which the headquarters is located. As a result of these reporting rules, the number of reporting units is always larger than the number of employers (or government agencies) but smaller than the number of actual establishments (or installations).

Data reported for the first quarter are tabulated into **size** categories ranging from worksites of very small size to those with 1,000 employees or more. The size category is determined by the establishment's March employment level. It is important to note that each establishment of a multi-establishment firm is tabulated separately into the appropriate size category. The total employment level of the reporting multi-establishment firm is not used in the size tabulation.

Covered employers in most States report total **wages** paid during the calendar quarter, regardless of when the services were performed. A few State laws, however, specify that wages be reported for, or based on the period during which services are performed rather than the period during which compensation is paid. Under most State laws or regulations, wages include bonuses, stock options, the cash value of meals and lodging, tips and other gratuities, and, in some States, employer contributions to certain deferred compensation plans such as 401(k) plans.

Covered employer contributions for old-age, survivors, and disability insurance (OASDI), health insurance, unemployment insurance, workers' compensation, and private pension and welfare funds are not reported as wages. Employee contributions for the same purposes, however, as well as money withheld for income taxes, union dues, and so forth, are reported even though they are deducted from the worker's gross pay.

Wages of covered Federal workers represent the gross amount of all payrolls for all pay periods ending within the quarter. This includes cash allowances, the cash equivalent of any type of remuneration, severance pay, withholding taxes, and retirement deductions. Federal employee remuneration generally covers the same types of services as for workers in private industry.

Average annual wage per employee for any given industry are computed by dividing total annual wages by annual average employment. A further division by 52 yields average weekly wages per employee. Annual pay data only approximate annual earnings because an individual may not be employed by the same employer all year or may work for more than one employer at a time.

Average weekly or annual wage is affected by the ratio of full-time to part-time workers as well as the number of individuals in high-paying and low-paying occupations. When average pay levels between States and industries are compared, these factors should be taken into consideration. For example, industries characterized by high proportions of part-time workers will

show average wage levels appreciably less than the weekly pay levels of regular full-time employees in these industries. The opposite effect characterizes industries with low proportions of part-time workers, or industries that typically schedule heavy weekend and overtime work. Average wage data also may be influenced by work stoppages, labor turnover rates, retroactive payments, seasonal factors, bonus payments, and so on.

Notes on the data

Beginning with the release of data for 2001, publications presenting data from the Covered Employment and Wages program have switched to the 2002 version of the North American Industry Classification System (NAICS) as the basis for the assignment and tabulation of economic data by industry. NAICS is the product of a cooperative effort on the part of the statistical agencies of the United States, Canada, and Mexico. Due to difference in NAICS and Standard Industrial Classification (SIC) structures, industry data for 2001 is not comparable to the SIC-based data for earlier years.

Effective January 2001, the program began assigning Indian Tribal Councils and related establishments to local government ownership. This BLS action was in response to a change in Federal law dealing with the way Indian Tribes are treated under the Federal Unemployment Tax Act. This law requires federally recognized Indian Tribes to be treated similarly to State and local governments. In the past, the Covered Employment and Wage (CEW) program coded Indian Tribal Councils and related establishments in the private sector. As a result of the new law, CEW data reflects significant shifts in employment and wages between the private sector and local government from 2000 to 2001. Data also reflect industry changes. Those accounts previously assigned to civic and social organizations were assigned to tribal governments. There were no required industry changes for related establishments owned by these Tribal Councils. These tribal business establishments continued to be coded according to the economic activity of that entity.

To insure the highest possible quality of data, State employment security agencies verify with employers and update, if necessary, the industry, location, and ownership classification of all establishments on a 3-year cycle. Changes in establishment classification codes resulting from the verification process are introduced with the data reported for the first quarter of the year. Changes resulting from improved employer reporting also are introduced in the first quarter. For these reasons, some data, especially at more detailed geographic levels, may not be strictly comparable with earlier years.

County definitions are assigned according to Federal Information Processing Standards Publications as issued by the National Institute of Standards and Technology. Areas shown as counties include those designated as independent cities in some jurisdictions and, in Alaska, those areas designated by the Census Bureau where counties have not been created. County data also are presented for the New England States for comparative purposes, even though townships are the more common designation used in New England (and New Jersey).

The Office of Management and Budget (OMB) defines metropolitan areas for use in Federal statistical activities and updates these definitions as needed. Data in this table use metropolitan area criteria established by OMB in definitions issued June 30, 1999 (OMB Bulletin No. 99-04). These definitions reflect information obtained from the 1990 Decennial Census and the 1998 U.S. Census Bureau population estimate. A complete list of metropolitan area definitions is available from the National Technical Information Service (NTIS), Document Sales, 5205 Port Royal Road, Springfield, Va. 22161, telephone 1-800-553-6847.

OMB defines metropolitan areas in terms of entire counties, except in the six New England States where they are defined in terms of cities and towns. New England data in this table, however, are based on a county concept defined by OMB as New England County Metropolitan Areas (NECMA) because county-level data are the most detailed available from the Quarterly Census of Employment and Wages. The NECMA is a county-based alternative to the city- and town-based metropolitan areas in New England. The NECMA for a Metropolitan Statistical Area (MSA) include: (1) the county containing the first-named city in that MSA title (this county may include the first-named cities of other MSA, and (2) each additional county having at least half its population in the MSA in which first-named cities are in the county identified in step 1. The NECMA is officially defined areas that are meant to be used by statistical programs that cannot use the regular metropolitan area definitions in New England.

FOR ADDITIONAL INFORMATION on the covered employment and wage data, contact the Division of Administrative Statistics and Labor Turnover at (202) 691–6567.

Job Openings and Labor Turnover Survey

Description of the series

Data for the **Job Openings and Labor Turnover Survey** (JOLTS) are collected and compiled from a sample of 16,000 business establishments. Each month, data are collected for total employment, job openings, hires, quits, layoffs and discharges, and other separations. The JOLTS program covers all private nonfarm establishments such as factories, offices, and stores, as well as Federal, State, and local government entities in the 50 States and the District of Columbia. The JOLTS sample design is a random sample drawn from a universe of more than eight million establishments compiled as part of the operations of the Quarterly Census of Employment and Wages, or QCEW, program. This program includes all employers subject to State unemployment insurance (UI) laws and Federal agencies subject to Unemployment Compensation for Federal Employees (UCFE).

The sampling frame is stratified by ownership, region, industry sector, and size class. Large firms fall into the sample with virtual certainty. JOLTS total employment estimates are controlled to the employment estimates of the Current Employment Statistics (CES) survey. A ratio of CES to JOLTS employment is used to adjust the levels for all other JOLTS data elements. Rates then are computed from the adjusted levels.

The monthly JOLTS data series begin with December 2000. Not seasonally adjusted data on job openings, hires, total separations, quits, layoffs and discharges, and other separations levels and rates are available for the total nonfarm sector, 16 private industry divisions and 2 government divisions based on the North American Industry Classification System (NAICS), and four geographic regions. Seasonally adjusted data on job openings, hires, total separations, and quits levels and rates are available for the total nonfarm sector, selected industry sectors, and four geographic regions.

Definitions

Establishments submit **job openings** information for the last business day of the reference month. A job opening requires that (1) a specific position exists and there is work available for that position; and (2) work could start within 30 days regardless of whether a suitable candidate is found; and (3) the employer is actively recruiting from outside the establishment to fill the position. Included are full-time, part-time, permanent,

short-term, and seasonal openings. Active recruiting means that the establishment is taking steps to fill a position by advertising in newspapers or on the Internet, posting help-wanted signs, accepting applications, or using other similar methods.

Jobs to be filled only by internal transfers, promotions, demotions, or recall from layoffs are excluded. Also excluded are jobs with start dates more than 30 days in the future, jobs for which employees have been hired but have not yet reported for work, and jobs to be filled by employees of temporary help agencies, employee leasing companies, outside contractors, or consultants. The job openings rate is computed by dividing the number of job openings by the sum of employment and job openings, and multiplying that quotient by 100.

Hires are the total number of additions to the payroll occurring at any time during the reference month, including both new and rehired employees and full-time and part-time, permanent, short-term and seasonal employees, employees recalled to the location after a layoff lasting more than 7 days, on-call or intermittent employees who returned to work after having been formally separated, and transfers from other locations. The hires count does not include transfers or promotions within the reporting site, employees returning from strike, employees of temporary help agencies or employee leasing companies, outside contractors, or consultants. The hires rate is computed by dividing the number of hires by employment, and multiplying that quotient by 100.

Separations are the total number of terminations of employment occurring at any time during the reference month, and are reported by type of separation—quits, layoffs and discharges, and other separations. Quits are voluntary separations by employees (except for retirements, which are reported as other separations). Layoffs and discharges are involuntary separations initiated by the employer and include layoffs with no intent to rehire, formal layoffs lasting or expected to last more than 7 days, discharges resulting from mergers, downsizing, or closings, firings or other discharges for cause, terminations of permanent or short-term employees, and terminations of seasonal employees. Other separations include retirements, transfers to other locations, deaths, and separations due to disability. Separations do not include transfers within the same location or employees on strike.

The separations rate is computed by dividing the number of separations by employment, and multiplying that quotient by 100. The quits, layoffs and discharges, and other separations rates are computed similarly, dividing the number by employment and multiplying by 100.

Notes on the data

The JOLTS data series on job openings, hires, and separations are relatively new. The full sample is divided into panels, with one panel enrolled each month. A full complement of panels for the original data series based on the 1987 Standard Industrial Classification (SIC) system was not completely enrolled in the survey until January 2002. The supplemental panels of establishments needed to create NAICS estimates were not completely enrolled until May 2003. The data collected up until those points are from less than a full sample. Therefore, estimates from earlier months should be used with caution, as fewer sampled units were reporting data at that time.

In March 2002, BLS procedures for collecting hires and separations data were revised to address possible underreporting. As a result, JOLTS hires and separations estimates for months prior to March 2002 may not be comparable with estimates for March 2002 and later.

The Federal Government reorganization that involved transferring approximately 180,000 employees to the new Department of Homeland Security is not reflected in the JOLTS hires and separations estimates for the Federal Government. The Office of Personnel Management's record shows these transfers were completed in March 2003. The inclusion of transfers in the JOLTS definitions of hires and separations is intended to cover ongoing movements of workers between establishments. The Department of Homeland Security reorganization was a massive one-time event, and the inclusion of these intergovernmental transfers would distort the Federal Government time series.

Data users should note that seasonal adjustment of the JOLTS series is conducted with fewer data observations than is customary. The historical data, therefore, may be subject to larger than normal revisions. Because the seasonal patterns in economic data series typically emerge over time, the standard use of moving averages as seasonal filters to capture these effects requires longer series than are currently available. As a result, the stable seasonal filter option is used in the seasonal adjustment of the JOLTS data. When calculating seasonal factors, this filter takes an average for each calendar month after detrending the series. The stable seasonal filter assumes that the seasonal factors are fixed; a necessary assumption until sufficient data are available. When the stable seasonal filter is no longer needed, other program features also may be introduced, such as outlier adjustment and extended diagnostic testing. Additionally, it is expected that more series, such as layoffs and discharges and additional industries, may be seasonally adjusted when more data are available.

JOLTS hires and separations estimates cannot be used to exactly explain net changes in payroll employment. Some reasons why it is problematic to compare changes in payroll employment with JOLTS hires and separations, especially on a monthly basis, are: (1) the reference period for payroll employment is the pay period including the 12th of the month, while the reference period for hires and separations is the calendar month; and (2) payroll employment can vary from month to month simply because part-time and on-call workers may not always work during the pay period that includes the 12th of the month. Additionally, research has found that some reporters systematically underreport separations relative to hires due to a number of factors, including the nature of their payroll systems and practices. The shortfall appears to be about 2 percent or less over a 12-month period.

FOR ADDITIONAL INFORMATION on the Job Openings and Labor Turnover Survey, contact the Division of Administrative Statistics and Labor Turnover at (202) 961-5870.

Compensation and Wage Data

(Tables 1–3; 30–36)

Compensation and waged data are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

Statistical series on total compensation

costs, on wages and salaries, and on benefit costs are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. The total compensation costs and wages and salaries series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 4,400 private nonfarm establishments providing about 23,000 occupational observations and 1,000 State and local government establishments providing 6,000 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer's costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as Social Security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981=100) are available on the Internet:

http://www.bls.gov/ect/

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Office of Compensation Levels and Trends: (202) 691–6199.

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 9,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 34 for medium and large private establishments and in table 35 for small private establishments and State and local government.

The survey covers paid leave benefits such as holidays and vacations, and personal, funeral, jury duty, military, family, and sick leave; short-term disability, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid family leave.

Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs.

Definitions

Employer-provided benefits are benefits that are financed either wholly or partly by the employer. They may be sponsored by a union or other third party, as long as there is some employer financing. However, some benefits that are fully paid for by the employee also are included. For example, long-term care insurance and postretirement life insurance paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Participants are workers who are covered by a benefit, whether or not they use that benefit. If the benefit plan is financed wholly by employers and requires employees to complete a minimum length of service for eligibility, the workers are considered participants whether or not they have met the requirement. If workers are required to contribute towards the cost of a plan, they are considered participants only if they elect the plan and agree to make the required contributions.

Defined benefit pension plans use predetermined formulas to calculate a retirement benefit (if any), and obligate the employer to provide those benefits. Benefits are generally based on salary, years of service, or both.

Defined contribution plans generally specify the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts.

Tax-deferred savings plans are a type of defined contribution plan that allow participants to contribute a portion of their salary to an employer-sponsored plan and defer income taxes until withdrawal.

Flexible benefit plans allow employees to choose among several benefits, such as life insurance, medical care, and vacation days, and among several levels of coverage within a given benefit.

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employ-

ees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

Beginning in 1990, surveys of State and local governments and small private establishments were conducted in even-numbered years, and surveys of medium and large establishments were conducted in odd-numbered years. The small establishment survey includes all private nonfarm establishments with fewer than 100 workers, while the State and local government survey includes all governments, regardless of the number of workers. All three surveys include full- and part-time workers, and workers in all 50 States and the District of Columbia.

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Office of Compensation Levels and Trends on the Internet:

http://www.bls.gov/ebs/

Work stoppages

Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 36.

Data are largely from a variety of published sources and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

Workers involved: The number of workers directly involved in the stoppage.

Number of days idle: The aggregate number of workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

FOR ADDITIONAL INFORMATION on work stoppages data, contact the Office of Compensation and Working Conditions: (202) 691–6282, or the Internet:

http:/www.bls.gov/cba/

Price Data

(Tables 2; 37–47)

Price data are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—December 2003 = 100 for many Producer Price Indexes (unless otherwise noted), 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1993–95 buying habits of about 87 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 38. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are meaured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of homeownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 and January 1998 data.

FOR ADDITIONAL INFORMATION, contact the Division of Prices and Price Indexes: (202) 691–7000.

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the 2002 North American Industry Classification System and product codes developed by the U.S. Census Bureau.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1992, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1987. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

FOR ADDITIONAL INFORMATION, contact the Division of Industrial Prices and Price Indexes: (202) 691–7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods and services traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts; it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected primarily by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during the first week of the month. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification, the three-digit level for the Standard International Trade Classification (SITC), and the four-digit level of detail for the Harmonized System. Aggregate import indexes by country or region of origin are also available.

BLS publishes indexes for selected categories of internationally traded services, calculated on an international basis and on a balance-of-payments basis.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. The trade weights currently used to compute both indexes relate to 2000.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

FOR ADDITIONAL INFORMATION, contact the Division of International Prices: (202) 691–7155.

Productivity Data

(Tables 2; 48–51)

Business and major sectors

Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour, output per unit of labor input, or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, nonenergy materials, and purchased business services.

Compensation per hour is total compensation divided by hours at work. Total compensation equals the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, plus an estimate of these payments for the self-employed (except for nonfinancial corporations in which there are no self-employed). **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

Unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

Hours of all persons are the total hours at work of payroll workers, self-employed persons, and unpaid family workers.

Labor inputs are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

Capital services are the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Combined units of labor and capital inputs are derived by combining changes in labor and capital input with weights which represent each component's share of total cost. Combined units of labor, capital, energy, materials, and purchased business services are similarly derived by combining changes in each input with weights that represent each input's share of total costs. The indexes for each input and for combined units are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 48–51 describe the relationship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 691–5606.

Industry productivity measures

Description of the series

The BLS industry productivity indexes measure the relationship between output and inputs for selected industries and industry groups, and thus reflect trends in industry efficiency over time. Industry measures include labor productivity, multifactor productivity, compensation, and unit labor costs.

The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

Output per hour is derived by dividing an index of industry output by an index of labor input. For most industries, **output** indexes are derived from data on the value of industry output adjusted for price change. For the remaining industries, output indexes are derived from data on the physical quantity of production.

The **labor input** series is based on the hours of all workers or, in the case of some transportation industries, on the number of employees. For most industries, the series consists of the hours of all employees. For some trade and services industries, the series also includes the hours of partners, proprietors, and unpaid family workers.

Unit labor costs represent the labor compensation costs per unit of output produced, and are derived by dividing an index of labor compensation by an index of output. **Labor compensation** includes payroll as well as supplemental payments, including both legally required expenditures and payments for voluntary programs.

Multifactor productivity is derived by dividing an index of industry output by an index of combined inputs consumed in producing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** represents the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories. The measure of **intermediate purchases** is a combination of purchased materials, services, fuels, and electricity.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics and the Census Bureau, with additional data supplied by other government agencies, trade associations, and other sources.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691–5618.

International Comparisons

(Tables 52–54)

Labor force and unemployment

Description of the series

Tables 52 and 53 present comparative measures of the labor force, employment, and unemployment approximating U.S. concepts for the United States, Canada, Australia, Japan, and six European countries. The labor force statistics published by other industrial countries are not, in most cases, comparable to U.S. concepts. Therefore, the Bureau adjusts the figures for selected countries, for all known major definitional differences, to the extent that data to prepare adjustments are available. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country. For further information on adjustments and comparability issues, see Constance Sorrentino, "International unemployment rates: how comparable are they?" *Monthly Labor Review*, June 2000, pp. 3–20 (available on the BLS Web site at **http://www.bls.gov/opub/mlr/2000/06/art1full.pdf**).

Definitions

For the principal U.S. definitions of the labor force, employment, and unemployment, see the Notes section on Employment and

Unemployment Data: Household survey data.

Notes on the data

The foreign country data are adjusted as closely as possible to U.S. concepts, with the exception of lower age limits and the treatment of layoffs. These adjustments include, but are not limited to: including older persons in the labor force by imposing no upper age limit, adding unemployed students to the unemployed, excluding the military and family workers working fewer than 15 hours from the employed, and excluding persons engaged in passive job search from the unemployed.

Data for the United States relate to the population 16 years of age and older. The U.S. concept of the working age population has no upper age limit. The adjusted to U.S. concepts statistics have been adapted, insofar as possible, to the age at which compulsory schooling ends in each country, and the Swedish statistics have been adjusted to include persons older than the Swedish upper age limit of 64 years. The adjusted statistics presented here relate to the population 16 years of age and older in France, Sweden, and the United Kingdom; 15 years of age and older in Australia, Japan, Germany, Italy, and the Netherlands. An exception to this rule is that the Canadian statistics are adjusted to cover the population 16 years of age and older, whereas the age at which compulsory schooling ends remains at 15 years. In the labor force participation rates and employment-population ratios, the denominator is the civilian noninstitutionalized working age population, except that the institutionalized working age population is included in Japan and Germany.

In the United States, the unemployed include persons who are not employed and who were actively seeking work during the reference period, as well as persons on layoff. Persons waiting to start a new job who were actively seeking work during the reference period are counted as unemployed under U.S. concepts; if they were not actively seeking work, they are not counted in the labor force. In some countries, persons on layoff are classified as employed due to their strong job attachment. No adjustment is made for the countries that classify those on layoff as employed. In the United States, as in Australia and Japan, passive job seekers are not in the labor force; job search must be active, such as placing or answering advertisements, contacting employers directly,or registering with an employment agency (simply reading ads is not enough to qualify as active search). Canada and the European countries classify passive jobseekers as unemployed. An adjustment is made to exclude them in Canada, but not in the European countries where the phenomenon is less prevalent. Persons waiting to start a new job are counted among the unemployed for all other countries, whether or not they were actively seeking work.

The figures for one or more recent years for France, Germany, and the Netherlands are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent year measures for these countries are therefore subject to revision whenever more current labor force surveys become available.

There are breaks in series for the United States (1994, 1997, 1998, 1999, 2000, 2003), Australia (2001), and Germany (1999).

For the United States, beginning in 1994, data are not strictly comparable for prior years because of the introduction of a major redesign of the labor force survey questionnaire and collection methodology. The redesign effect has been estimated to increase the overall unemployment rate by 0.1 percentage point. Other breaks noted relate to changes in population controls that had virtually no effect on unemployment rates.

For a description of all the changes in the U.S. labor force survey over time and their impact, see Historical Comparability in the "Household Data" section of the BLS publication *Employment and Earnings* (available on the BLS Web site at **http://www.bls.gov/cps/eetech_methods.pdf**).

For Australia, the 2001 break reflects the introduction in April 2001 of a redesigned labor force survey that allowed for a closer application of International Labor Office guidelines for the definitions of labor force statistics. The Australian Bureau of Statistics revised their data so there is no break in the employment series. However, the reclassification of persons who had not actively looked for work because they were waiting to begin a new job from "not in the labor force" to "unemployed" could only be incorporated for April 2001 forward. This reclassification diverges from the U.S. definition where persons waiting to start a new job but not actively seeking work are not counted in the labor force. The impact of the reclassification was an increase in the unemployment rate by 0.1 percentage point in 2001.

For Germany, the 1999 break reflects the incorporation of an improved method of data calculation and a change in coverage to persons living in private households only.

For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries*, on the BLS Web site at **http://www.bls.gov/fls/flslforc.pdf**

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691-5654 or **flshelp@bls.gov**

Manufacturing productivity and labor costs

Description of the series

Table 54 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) in the United States, Canada, Japan, France, Germany, Norway, and Sweden, and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing from the national accounts of each country. However, the output series for Japan prior to 1970 is an index of industrial production, and the national accounts measures for the United Kingdom are essentially identical to their indexes of industrial production.

The 1977–97 output data for the United States are the gross product originating (value added) measures prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Comparable manufacturing output data currently are not available prior to 1977.

U.S. gross product originating is a chain-type annual-weighted series. (For more information on the U.S. measure, see Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," *Survey of Current Business*, August 1996, pp. 133–55.) The Japanese value added series is based upon one set of fixed price weights for the years 1970 through 1997. Output series for the other foreign economies also employ fixed price weights, but the weights are updated periodically (for example, every 5 or 10 years).

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 48 and 50 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

Total labor hours refers to hours worked in all countries. The measures are developed from statistics of manufacturing employment and average hours. The series used for France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. Where official total hours series are not available, the measures are developed by BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked. For Germany, BLS uses estimates of average hours worked developed by a research institute connected to the Ministry of Labor for use with the national accounts employment figures. For the other countries, BLS constructs its own estimates of average hours.

An hours series is not available for Denmark after 1993; therefore, the BLS measure of labor input for Denmark ends in 1993.

Total compensation (labor cost) includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. The measures are from the national accounts of each country, except those for Belgium, which are developed by BLS using statistics on employment, average hours, and hourly compensation. For Canada, France, and Sweden, compensation is increased to account for other significant taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for employment-related subsidies. Self-employed workers are included in the all-employed-persons measures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (for all years) and Italy (beginning in 1970) refer to mining and manufacturing less energy-related products, and the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966.

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Occupational Injury and Illness Data

(Tables 55–56)

Survey of Occupational Injuries and Illnesses

Description of the series

The Survey of Occupational Injuries and Illnesses collects data from employers about their workers' job-related nonfatal injuries and illnesses. The information that employers provide is based on records that they maintain under the Occupational Safety and Health Act of 1970. Self-employed individuals, farms with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies are excluded from the survey.

The survey is a Federal-State cooperative program with an independent sample selected for each participating State. A stratified random sample with a Neyman allocation is selected to represent all private industries in the State. The survey is stratified by Standard Industrial Classification and size of employment.

Definitions

Under the Occupational Safety and Health Act, employers maintain records of nonfatal work-related injuries and illnesses that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

Occupational injury is any injury such as a cut, fracture, sprain, or amputation that results from a work-related event or a single, instantaneous exposure in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday injuries and illnesses are cases that involve days away from work, or days of restricted work activity, or both.

Lost workdays include the number of workdays (consecutive or not) on which the employee was either away from work or at work in some restricted capacity, or both, because of an occupational injury or illness. BLS measures of the number and incidence rate of lost workdays were discontinued beginning with the 1993 survey. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked, such as a Federal holiday, even though able to work.

Incidence rates are computed as the number of injuries and/or illnesses or lost work days per 100 full-time workers.

Notes on the data

The definitions of occupational injuries and illnesses are from *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (U.S. Department of Labor, Bureau of Labor Statistics, September 1986).

Estimates are made for industries and employment size classes for total recordable cases, lost workday cases, days away from work cases, and nonfatal cases without lost workdays. These data also are shown separately for injuries. Illness data are available for seven categories: occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic agents), disorders due to physical agents (other than toxic materials), disorders associated with repeated trauma, and all other occupational illnesses.

The survey continues to measure the number of new work-related illness cases which are recognized, diagnosed, and reported during the year. Some conditions, for example, long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These long-term latent ill-

nesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example, contact dermatitis and carpal tunnel syndrome).

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses per 100 equivalent full-time workers. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Full detail on the available measures is presented in the annual bulletin, *Occupational Injuries and Illnesses: Counts, Rates, and Characteristics.*

Comparable data for more than 40 States and territories are available from the BLS Office of Safety, Health and Working Conditions. Many of these States publish data on State and local government employees in addition to private industry data.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration. Data from these organizations are included in both the national and State data published annually.

With the 1992 survey, BLS began publishing details on serious, nonfatal incidents resulting in days away from work. Included are some major characteristics of the injured and ill workers, such as occupation, age, gender, race, and length of service, as well as the circumstances of their injuries and illnesses (nature of the disabling condition, part of body affected, event and exposure, and the source directly producing the condition). In general, these data are available nationwide for detailed industries and for individual States at more aggregated industry levels.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the Office of Occupational Safety, Health and Working Conditions at (202) 691–6180, or access the Internet at:

http://www.bls.gov/iif/

Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers' compensation reports, Occupational Safety and Health Administration and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

In addition to private wage and salary workers, the self-employed, family members, and Federal, State, and local government workers are covered by the program. To be included in the fatality census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job.

Definition

A fatal work injury is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy, such as heat or electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

FOR ADDITIONAL INFORMATION on the Census of Fatal Occupational Injuries contact the BLS Office of Safety, Health, and Working Conditions at (202) 691–6175, or the Internet at:

http://www.bls.gov/iif/

1. Labor market indicators

Selected indicators	2002	2003	2002		2003				2004		
			III	IV	I	II	III	IV	I	II	III
Employment data											
Employment status of the civilian noninstitutional population (household survey):[1]											
Labor force participation rate	66.6	66.2	66.6	66.5	66.3	66.4	66.2	66.1	66.0	65.9	66.0
Employment-population ratio	62.7	62.3	62.8	62.5	62.4	62.3	62.1	62.3	62.2	62.2	62.4
Unemployment rate	5.8	6.0	5.8	5.9	5.8	6.1	6.1	5.9	5.6	5.6	5.5
Men	5.9	6.3	5.9	6.1	6.1	6.5	6.4	6.1	5.7	5.7	5.6
16 to 24 years	12.8	13.4	13.1	12.5	12.6	14.0	13.8	13.1	12.5	12.9	12.5
25 years and older	4.7	5.0	4.7	4.9	5.0	5.2	5.1	4.9	4.5	4.5	4.4
Women	5.6	5.7	5.6	5.7	5.5	5.7	5.8	5.6	5.6	5.4	5.4
16 to 24 years	11.1	11.4	10.9	11.4	11.2	11.8	11.5	10.9	11.1	10.9	11.0
25 years and older	4.6	4.6	4.6	4.6	4.5	4.6	4.7	4.6	4.5	4.4	4.3
Employment, nonfarm (payroll data), in thousands:[1]											
Total nonfarm	130,341	129,931	130,287	130,248	130,047	129,878	129,820	130,002	130,367	131,125	131,521
Total private	108,828	108,356	108,736	108,654	108,428	108,309	108,260	108,453	108,827	109,577	109,897
Goods-producing	22,557	21,817	22,466	22,252	22,025	21,848	21,718	21,676	21,719	21,869	21,927
Manufacturing	22,557	21,817	15,197	14,979	14,775	14,570	14,410	14,340	14,326	14,385	14,403
Service-providing	107,789	108,114	107,821	107,995	108,022	108,030	108,102	108,326	108,648	109,256	109,595
Average hours:											
Total private	33.9	33.7	33.9	33.8	33.8	33.7	33.6	33.7	33.8	33.7	33.8
Manufacturing	40.5	40.4	40.4	40.4	40.4	40.2	40.2	40.6	41.0	40.9	40.8
Overtime	4.2	4.2	4.3	4.2	4.2	4.1	4.1	4.4	4.6	4.6	4.6
Employment Cost Index[2]											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers)	3.4	3.8	.9	.6	1.4	.8	1.1	.5	1.4	.9	1.0
Private industry workers	3.2	4.0	.6	.4	1.7	.8	1.0	.4	1.5	.9	.8
Goods-producing[3]	3.7	4.0	.6	.9	1.8	.9	.7	.5	2.3	.9	.9
Service-providing[3]	3.1	4.0	.6	.2	1.5	.8	1.1	.5	1.1	1.0	.8
State and local government workers	4.1	3.3	2.2	.9	.7	.4	1.7	.5	.7	.4	1.7
Workers by bargaining status (private industry):											
Union	4.2	4.6	1.2	.9	1.6	1.2	1.0	.7	2.8	1.5	.8
Nonunion	3.2	3.9	.5	.4	1.6	.8	1.0	.4	1.3	.8	.9

[1] Quarterly data seasonally adjusted.

[2] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

[3] Goods-producing industries include mining, construction, and manufacturing. Service-providing industries include all other private sector industries.

NOTE: Beginning in January 2003, household survey data reflect revised population controls. Nonfarm data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data.

2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	2002	2003	2002		2003				2004		
			III	IV	I	II	III	IV	I	II	III
Compensation data[1,2]											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm	3.4	3.8	0.9	0.6	1.4	0.8	1.1	0.5	1.4	0.9	1.0
Private nonfarm	3.2	4.0	.6	.4	1.7	.8	1.0	.4	1.5	.9	.8
Employment Cost Index—wages and salaries:											
Civilian nonfarm	2.9	2.9	.7	.4	1.0	.6	.9	.3	.6	.6	.9
Private nonfarm	2.7	3.0	.4	.3	1.1	.7	.8	.4	.7	.7	.9
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items	2.3	2.3	.6	-.1	1.8	−.3	−.2	−.2	1.2	1.2	.2
Producer Price Index:											
Finished goods	3.2	3.2	.2	-.1	3.7	−.8	.3	.0	1.2	1.2	.0
Finished consumer goods	4.2	4.2	.0	-.3	2.4	1.8	.3	.0	1.5	1.4	−1.7
Capital equipment	.4	.4	−.7	.6	.6	−.6	−.1	.0	.6	.5	.4
Intermediate materials, supplies, and components	4.6	4.6	1.1	.1	6.5	−2.1	−.1	.0	2.5	3.0	1.9
Crude materials	25.2	25.2	1.9	6.5	28.0	−10.6	3.4	14.4	6.0	7.6	−5.1
Productivity data[3]											
Output per hour of all persons:											
Business sector	4.3	4.5	4.8	1.2	3.9	7.6	8.5	2.4	3.9	1.5	2.3
Nonfarm business sector	4.4	4.4	4.5	1.6	3.7	6.7	9.0	3.1	3.7	3.9	1.9
Nonfinancial corporations[4]	4.4	5.4	4.1	3.4	3.2	9.1	9.4	5.0	.1	2.7	–

[1] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter. Compensation and price data are not seasonally adjusted, and the price data are not compounded.

[2] Excludes Federal and private household workers.

[3] Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

[4] Output per hour of all employees.

NOTE: Dash indicates data not available.

3. Alternative measures of wage and compensation changes

Components	Quarterly change					Four quarters ending—				
	2003		2004			2003		2004		
	III	IV	I	II	III	III	IV	I	II	III
Average hourly compensation:[1]										
All persons, business sector	5.6	4.0	2.8	4.3	3.8	4.6	5.3	4.6	4.2	3.7
All persons, nonfarm business sector	6.1	4.4	2.0	4.9	3.6	4.6	5.4	4.5	4.4	3.7
Employment Cost Index—compensation:										
Civilian nonfarm[2]	1.1	.5	1.4	.9	1.0	3.9	3.8	3.8	3.9	3.8
Private nonfarm	1.0	.4	1.5	.9	.8	4.0	4.0	3.9	4.0	3.7
Union	1.0	.7	2.8	1.5	.8	4.8	4.6	5.7	6.0	5.8
Nonunion	1.0	.4	1.3	.8	.9	3.8	3.9	3.6	3.5	3.4
State and local governments	1.7	.5	.7	.4	1.7	3.6	3.3	3.3	3.4	3.4
Employment Cost Index—wages and salaries:										
Civilian nonfarm[2]	.9	.3	.6	.6	.9	2.9	2.9	2.5	2.5	2.4
Private nonfarm	.8	.4	.7	.7	.9	3.0	3.0	2.6	2.6	2.6
Union	.6	.6	.6	1.0	.8	2.6	2.4	2.5	2.9	3.0
Nonunion	.9	.2	.7	.6	.8	3.1	3.1	2.6	2.5	2.5
State and local governments	1.0	.4	.4	.2	1.0	2.3	2.1	2.1	1.9	2.0

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

[2] Excludes Federal and household workers.

4. Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
TOTAL															
Civilian noninstitutional population[1]	217,570	221,168	222,039	222,279	222,509	222,161	222,357	222,550	222,757	222,967	223,196	223,422	223,677	223,941	224,192
Civilian labor force	144,863	146,510	146,892	147,187	146,878	146,863	146,471	146,650	146,741	146,974	147,279	147,856	147,704	147,483	147,850
Participation rate	66.6	66.2	66.2	66.2	66.0	66.1	65.9	65.9	65.9	65.9	66.0	66.2	66.0	65.9	65.9
Employed	136,485	137,736	138,095	138,533	138,479	138,566	138,301	138,298	138,576	138,772	139,031	139,660	139,681	139,480	139,778
Employment-population ratio[2]	62.7	62.3	62.2	62.3	62.2	62.4	62.2	62.1	62.2	62.2	62.3	62.5	62.4	62.3	62.3
Unemployed	8,378	8,774	8,797	8,653	8,398	8,297	8,170	8,352	8,164	8,203	8,248	8,196	8,022	8,003	8,072
Unemployment rate	5.8	6.0	6.0	5.9	5.7	5.6	5.6	5.7	5.6	5.6	5.6	5.5	5.4	5.4	5.5
Not in the labor force	72,707	74,658	75,147	75,093	75,631	75,298	75,886	75,900	76,016	75,993	75,916	75,565	75,973	76,458	76,342
Men, 20 years and over															
Civilian noninstitutional population[1]	96,439	98,272	98,696	98,814	98,927	98,866	98,966	99,065	99,170	99,279	99,396	99,512	99,642	99,776	99,904
Civilian labor force	73,630	74,623	74,942	75,188	75,044	75,171	74,797	75,018	74,871	75,048	75,372	75,577	75,639	75,443	75,622
Participation rate	76.3	75.9	75.9	76.1	75.9	76.0	75.6	75.7	75.5	75.6	75.8	75.9	75.9	75.6	75.7
Employed	69,734	70,415	70,726	70,964	71,099	71,329	70,969	71,128	71,118	71,162	71,570	71,847	71,870	71,677	71,882
Employment-population ratio[2]	72.3	71.7	71.7	71.8	71.9	72.1	71.7	71.8	71.7	71.7	72.0	72.2	72.1	71.8	72.0
Unemployed	3,896	4,209	4,216	4,224	3,945	3,842	3,828	3,890	3,753	3,886	3,802	3,730	3,768	3,766	3,740
Unemployment rate	5.3	5.6	5.6	5.6	5.3	5.1	5.1	5.2	5.0	5.2	5.0	4.9	5.0	5.0	4.9
Not in the labor force	22,809	23,649	23,754	23,620	23,882	23,694	24,168	24,047	24,299	24,231	24,023	23,935	24,003	24,332	24,282
Women, 20 years and over															
Civilian noninstitutional population[1]	105,136	106,800	107,197	107,303	107,404	107,131	107,216	107,299	107,389	107,483	107,586	107,687	107,801	107,920	108,032
Civilian labor force	63,648	64,716	64,899	64,917	64,846	64,515	64,629	64,687	64,785	64,813	64,893	65,122	64,903	64,989	65,103
Participation rate	60.5	60.6	60.5	60.5	60.4	60.2	60.3	60.3	60.3	60.3	60.3	60.5	60.2	60.2	60.3
Employed	60,420	61,402	61,524	61,597	61,521	61,260	61,456	61,373	61,571	61,721	61,629	61,918	61,870	61,925	61,918
Employment-population ratio[2]	57.5	57.5	57.4	57.4	57.3	57.2	57.3	57.2	57.3	57.4	57.3	57.5	57.4	57.4	57.4
Unemployed	3,228	3,314	3,375	3,320	3,326	3,255	3,172	3,314	3,215	3,092	3,264	3,204	3,033	3,064	3,105
Unemployment rate	5.1	5.1	5.2	5.1	5.1	5.0	4.9	5.1	5.0	4.8	5.0	4.9	4.7	4.7	4.8
Not in the labor force	41,488	42,083	42,299	42,387	42,558	42,617	42,587	42,613	42,604	42,670	42,693	42,565	42,898	42,931	42,928
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	15,994	16,096	16,145	16,162	16,178	16,164	16,175	16,186	16,198	16,205	16,214	16,222	16,234	16,246	16,257
Civilian labor force	7,585	7,170	7,051	7,082	6,987	7,177	7,045	6,945	7,085	7,113	7,014	7,157	7,162	7,051	7,124
Participation rate	47.4	44.5	43.7	43.8	43.2	44.4	43.6	42.9	43.7	43.9	43.3	44.1	44.1	43.4	43.8
Employed	6,332	5,919	5,846	5,972	5,859	5,977	5,875	5,797	5,888	5,888	5,832	5,896	5,941	5,877	5,898
Employment-population ratio[2]	39.6	36.8	36.2	37.0	36.2	37.0	36.3	35.8	36.3	36.3	36.0	36.3	36.6	36.2	36.3
Unemployed	1,253	1,251	1,205	1,109	1,128	1,200	1,170	1,148	1,197	1,225	1,181	1,262	1,220	1,173	1,226
Unemployment rate	16.5	17.5	17.1	15.7	16.1	16.7	16.6	16.5	16.9	17.2	16.8	17.6	17.0	16.6	17.2
Not in the labor force	8,409	8,926	9,094	9,080	9,191	8,987	9,130	9,240	9,113	9,092	9,200	9,065	9,072	9,195	9,732
White[3]															
Civilian noninstitutional population[1]	179,783	181,292	181,871	182,032	182,185	181,879	182,001	182,001	182,252	182,384	182,531	182,676	182,846	183,022	183,188
Civilian labor force	120,150	120,546	120,736	121,041	120,751	120,723	120,540	120,542	120,675	120,984	121,180	121,428	121,300	121,016	121,240
Participation rate	66.8	66.5	66.4	66.5	66.3	66.4	66.2	66.2	66.2	66.3	66.4	66.5	66.3	66.1	66.2
Employed	114,013	114,235	114,535	114,783	114,678	114,765	114,602	114,433	114,712	114,976	115,152	115,623	115,547	115,323	115,572
Employment-population ratio[2]	63.4	63.0	63.0	63.1	62.9	63.1	63.0	62.8	62.9	63.0	63.1	63.3	63.2	63.0	63.1
Unemployed	6,137	6,311	6,200	6,258	6,073	5,958	5,938	6,109	5,963	6,008	6,028	5,805	5,753	5,693	5,668
Unemployment rate	5.1	5.2	5.1	5.2	5.0	4.9	4.9	5.1	4.9	5.0	5.0	4.8	4.7	4.7	4.7
Not in the labor force	59,633	60,746	61,135	60,991	61,434	61,156	61,460	61,579	61,577	61,400	61,351	61,248	61,546	62,006	61,948
Black or African American[3]															
Civilian noninstitutional population[1]	25,578	25,686	25,825	25,860	25,894	25,867	25,900	25,932	25,967	26,002	26,040	26,078	26,120	26,163	26,204
Civilian labor force	16,565	16,526	16,589	16,524	16,365	16,602	16,404	16,595	16,485	16,442	16,506	16,755	16,724	16,703	16,839
Participation rate	64.8	64.3	64.2	63.9	63.2	64.2	63.3	64.0	63.5	63.2	63.4	64.3	64.0	63.8	64.3
Employed	14,872	14,739	14,696	14,812	14,679	14,886	14,804	14,909	14,878	14,818	14,833	14,926	14,983	14,981	15,037
Employment-population ratio[2]	58.1	57.4	56.9	57.3	56.7	57.5	57.2	57.2	57.3	57.0	57.0	57.2	57.4	57.3	57.4
Unemployed	1,693	1,787	1,893	1,712	1,686	1,736	1,600	1,686	1,607	1,624	1,673	1,829	1,741	1,722	1,802
Unemployment rate	10.2	10.8	11.4	10.4	10.3	10.5	9.8	10.2	9.7	9.9	10.1	10.9	10.4	10.3	10.7
Not in the labor force	9,013	9,161	9,236	9,336	9,529	9,265	9,495	9,337	9,482	9,560	9,534	9,323	9,396	9,460	9,365

See footnotes at end of table.

4. Continued—Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Hispanic or Latino ethnicity															
Civilian noninstitutional population[1]	25,963	27,551	27,913	28,016	28,116	27,619	27,705	27,791	27,879	27,968	28,059	28,150	28,243	28,431	28,520
Civilian labor force	17,943	18,813	18,940	19,125	19,035	18,811	18,693	19,010	19,064	19,313	19,304	19,450	19,482	19,533	19,563
Participation rate	69.1	68.3	67.9	68.3	67.7	68.1	67.5	68.4	68.4	69.1	68.8	69.1	69.0	68.7	68.6
Employed	16,590	17,372	17,556	17,709	17,784	17,441	17,303	17,596	17,693	17,958	18,019	18,118	18,144	18,220	18,247
Employment-population ratio[2]	63.9	63.1	62.9	63.2	63.3	63.2	62.5	63.3	63.5	64.2	64.2	64.4	64.2	64.1	64.0
Unemployed	1,353	1,441	1,383	1,416	1,250	1,370	1,389	1,414	1,371	1,355	1,285	1,332	1,338	131	1,317
Unemployment rate	7.5	7.7	7.3	7.4	6.6	7.3	7.4	7.4	7.2	7.0	6.7	6.8	6.9	6.7	6.7
Not in the labor force	8,020	8,738	8,974	8,891	9,082	8,807	9,012	8,781	8,815	8,654	8,755	8,700	8,761	8,898	8,957

[1] The population figures are not seasonally adjusted.

[2] Civilian employment as a percent of the civilian noninstitutional population.

[3] Beginning in 2003, persons who selected this race group only; persons who selected more than one race group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race.

NOTE: Estimates for the above race groups (white and black or African American) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Beginning in January 2003, data reflect revised population controls used in the household survey.

5. Selected employment indicators, monthly data seasonally adjusted

[In thousands]

Selected categories	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Characteristic															
Employed, 16 years and over	136,845	137,736	138,095	138,533	138,479	138,566	138,301	138,298	138,576	138,772	139,031	139,660	139,681	139,480	139,778
Men	72,903	73,332	73,643	73,915	74,085	74,343	73,901	74,006	74,053	74,035	74,476	74,522	74,860	74,631	74,837
Women	63,582	64,404	64,452	64,618	64,394	64,223	64,400	64,292	64,523	64,737	64,555	64,838	64,822	64,879	64,941
Married men, spouse present	44,116	44,653	44,684	45,152	45,431	45,490	45,128	45,043	44,735	44,723	44,938	44,935	45,106	45,034	45,052
Married women, spouse present	34,155	34,695	34,993	35,076	35,034	34,585	34,502	34,256	34,339	34,522	34,461	34,599	34,448	34,601	34,798
Persons at work part time[1]															
All industries															
Part time for economic reasons	4,213	4,701	4,800	4,880	4,788	4,714	4,437	4,733	4,574	4,665	4,513	4,490	4,504	4,452	4,732
Slack work or business conditions	2,788	3,118	3,030	3,226	3,205	2,996	2,865	3,011	2,819	2,853	2,903	2,660	2,812	2,808	3,053
Could only find part-time work	1,124	1,279	1,356	1,350	1,295	1,380	1,347	1,427	1,439	1,467	1,404	1,500	1,461	1,312	1,371
Part time for noneconomic reasons	18,843	19,014	18,935	19,110	18,561	18,905	18,900	19,006	19,000	19,621	19,531	19,741	19,680	19,386	19,710
Nonagricultural industries															
Part time for economic reasons	4,119	4,596	4,690	4,782	4,727	4,613	4,328	4,622	4,471	4,605	4,442	4,400	4,391	4,379	4,627
Slack work or business conditions	2,726	3,052	2,964	3,153	3,144	2,911	2,778	2,927	2,756	2,812	2,762	2,605	2,714	2,753	2,995
Could only find part-time work	1,114	1,264	1,349	1,353	1,279	1,399	1,340	1,414	1,431	1,476	1,387	1,496	1,442	1,315	1,357
Part time for noneconomic reasons	18,487	18,658	18,628	18,752	18,367	18,636	18,691	18,693	18,664	19,220	19,072	19,290	19,213	19,025	19,305

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

6. Selected unemployment indicators, monthly data seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Characteristic															
Total, 16 years and older	5.8	6.0	6.0	5.9	5.7	5.6	5.6	5.7	5.6	5.6	5.6	5.5	5.4	5.4	5.5
Both sexes, 16 to 19 years	16.5	17.5	17.1	15.7	16.1	16.7	16.6	16.5	16.9	17.2	16.8	17.6	17.0	16.6	17.2
Men, 20 years and older	5.3	5.6	5.6	5.6	5.3	5.3	5.1	5.2	5.0	5.2	5.0	4.9	5.0	5.0	4.9
Women, 20 years and older	5.1	5.1	5.2	5.1	5.1	5.0	4.9	5.1	5.0	4.8	5.0	4.9	4.7	4.7	4.8
White, total[1]	5.1	5.2	5.1	5.2	5.0	4.9	4.9	5.1	4.9	5.0	5.0	4.8	4.7	4.7	4.7
Both sexes, 16 to 19 years	14.5	15.2	14.3	14.3	14.8	14.1	15.2	14.8	15.7	15.7	14.8	14.9	15.3	14.7	15.2
Men, 16 to 19 years	15.9	17.1	15.9	16.8	16.3	14.0	15.5	16.2	17.9	18.6	16.4	15.5	15.8	15.8	17.4
Women, 16 to 19 years	13.1	13.3	12.6	11.5	13.1	14.2	14.9	13.3	13.3	12.7	13.2	14.3	14.8	13.6	12.7
Men, 20 years and older	4.7	5.0	4.9	5.0	4.7	4.5	4.5	4.7	4.5	4.7	4.5	4.3	4.4	4.3	4.3
Women, 20 years and older	4.4	4.4	4.4	4.4	4.3	4.4	4.2	4.4	4.2	4.1	4.4	4.2	4.0	4.0	4.0
Black or African American, total[1]	10.2	10.8	11.4	10.4	10.3	10.5	9.8	10.2	9.7	9.9	10.1	10.9	10.4	10.3	10.7
Both sexes, 16 to 19 years	29.8	33.0	37.3	28.9	27.3	32.5	25.1	29.4	28.3	32.5	32.6	37.0	28.9	28.9	34.5
Men, 16 to 19 years	31.3	36.0	40.9	32.5	28.4	42.1	29.6	36.6	30.9	30.3	33.9	37.8	33.9	36.0	36.9
Women, 16 to 19 years	28.3	30.3	33.2	25.7	26.5	25.8	21.9	22.8	26.1	34.1	31.4	36.3	24.1	21.6	32.3
Men, 20 years and older	9.5	10.3	10.5	10.1	9.3	9.6	9.4	9.2	9.3	9.3	9.3	10.3	10.4	10.4	10.2
Women, 20 years and older	8.8	9.2	9.8	9.1	9.7	9.1	8.8	9.3	8.7	8.4	8.9	9.1	8.7	8.9	8.9
Hispanic or Latino ethnicity	7.5	7.7	7.3	7.4	6.6	7.3	7.4	7.4	7.2	7.0	6.7	6.8	6.9	7.1	6.7
Married men, spouse present	3.6	3.8	3.8	3.7	3.3	3.3	3.4	3.2	3.1	3.1	3.2	3.2	3.1	3.0	3.0
Married women, spouse present	3.7	3.7	3.8	3.8	3.9	3.7	3.6	3.7	3.7	3.3	3.7	3.5	3.5	3.2	3.1
Full-time workers	5.9	6.1	6.1	6.1	5.8	5.7	5.6	5.8	5.6	5.7	5.6	5.6	5.5	5.6	5.4
Part-time workers	5.2	5.5	5.5	5.1	5.3	5.4	5.2	5.4	5.3	5.2	5.5	5.2	5.2	5.0	5.5
Educational attainment[2]															
Less than a high school diploma	8.4	8.8	8.8	8.5	8.1	8.8	8.5	8.8	8.7	8.8	8.8	8.3	8.1	8.8	8.2
High school graduates, no college[3]	5.3	5.5	5.5	5.4	5.5	4.9	5.0	5.3	5.2	5.0	5.1	5.1	4.9	4.8	4.9
Some college or associate degree	4.5	4.8	4.8	4.8	4.5	4.5	4.4	4.7	4.1	4.0	4.2	4.2	4.0	4.0	4.1
Bachelor's degree and higher[4]	2.9	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.7	2.7	2.7	2.6	2.5

[1] Beginning in 2003, persons who selected this race group only; persons who selected more than one race group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race.

[2] Data refer to persons 25 years and older.

[3] Includes high school diploma or equivalent.

[4] Includes persons with bachelor's, master's, professional, and doctoral degrees.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Less than 5 weeks	2,893	2,785	2,733	2,622	2,627	2,612	2,468	2,589	2,792	2,707	2,688	2,805	2,604	2,790	2,749
5 to 14 weeks	2,580	2,612	2,585	2,556	2,450	2,394	2,412	2,414	2,369	2,376	2,405	2,476	2,521	2,255	2,288
15 weeks and over	2,904	3,378	3,478	3,484	3,403	3,365	3,274	3,320	2,969	3,077	3,065	2,878	2,903	2,954	3,043
15 to 26 weeks	1,369	1,442	1,460	1,448	1,513	1,467	1,403	1,332	1,170	1,288	1,306	1,211	1,239	1,253	1,253
27 weeks and over	1,535	1,936	2,018	2,036	1,890	1,898	1,871	1,988	1,800	1,789	1,759	1,667	1,664	1,747	1,790
Mean duration, in weeks	16.6	19.2	19.4	20.0	19.6	19.8	20.3	20.1	19.7	20.0	19.9	18.6	19.0	19.6	19.6
Median duration, in weeks	9.1	10.1	10.3	10.4	10.4	10.7	10.3	10.3	9.5	10.0	10.8	8.9	9.4	9.5	9.5

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

8. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Job losers[1]	4,607	4,838	4,877	4,719	4,618	4,382	4,323	4,607	4,399	4,211	4,099	4,181	3,936	3,984	4,064
On temporary layoff	1,124	1,121	1,097	1,055	1,060	1,028	1,064	1,040	994	926	1,011	1,065	982	917	944
Not on temporary layoff	3,483	3,717	3,780	3,664	3,558	3,353	3,258	3,567	3,405	3,286	3,088	3,116	2,955	3,068	3,120
Job leavers	866	818	789	931	783	804	827	836	822	846	902	895	884	827	824
Reentrants	2,368	2,477	2,518	2,440	2,366	2,509	2,424	2,424	2,314	2,438	2,435	2,330	2,447	2,424	2,419
New entrants	536	641	653	619	694	681	676	627	645	713	636	680	694	692	748
Percent of unemployed															
Job losers[1]	55.0	55.1	55.2	54.2	54.6	52.3	52.4	54.2	53.8	51.3	50.8	51.7	49.4	50.3	50.5
On temporary layoff	13.4	12.8	12.4	12.1	12.5	12.3	12.9	12.2	12.1	11.3	12.5	13.2	12.3	11.6	11.7
Not on temporary layoff	41.6	42.4	42.8	42.1	42.0	40.0	39.8	42.0	41.6	40.0	38.3	38.5	37.1	38.7	38.7
Job leavers	10.3	9.3	8.9	10.7	9.3	9.6	10.0	9.8	10.1	10.3	11.2	11.1	11.1	10.4	10.2
Reentrants	28.3	28.2	28.5	28.0	28.0	30.0	29.4	28.5	28.3	29.7	30.2	28.8	30.7	30.6	30.0
New entrants	6.4	7.3	7.4	7.1	8.2	8.1	8.2	7.4	7.9	8.7	7.9	8.4	8.7	8.7	9.3
Percent of civilian labor force															
Job losers[1]	3.2	3.3	3.3	3.2	3.1	3.0	3.0	3.1	3.0	2.9	2.8	2.8	2.7	2.7	2.7
Job leavers	.6	.6	.5	.6	.5	.5	.6	.6	.6	.6	.6	.6	.6	.6	.6
Reentrants	1.6	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.6	1.7	1.7	1.6	1.7	1.6	1.6
New entrants	.4	.4	.4	.4	.5	.5	.5	.4	.4	.5	.4	.5	.5	.5	.5

[1] Includes persons who completed temporary jobs.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

9. Unemployment rates by sex and age, monthly data seasonally adjusted

[Civilian workers]

Sex and age	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Total, 16 years and older	5.8	6.0	6.0	5.9	5.7	5.6	5.6	5.7	5.6	5.6	5.6	5.5	5.4	5.4	5.5
16 to 24 years	12.0	12.4	12.3	12.1	11.7	12.0	11.8	11.8	11.6	12.1	12.0	12.0	11.6	11.8	12.2
16 to 19 years	16.5	17.5	17.1	15.7	16.1	16.7	16.6	16.5	16.9	17.2	16.8	17.6	17.0	16.6	17.2
16 to 17 years	18.8	19.1	20.2	17.5	18.3	18.2	17.6	19.4	20.2	21.6	20.6	20.2	20.8	19.6	20.5
18 to 19 years	15.1	16.4	15.2	14.7	14.7	15.7	15.7	14.5	14.7	14.7	14.3	16.1	14.9	14.9	15.2
20 to 24 years	9.7	10.0	10.1	10.4	9.6	9.8	9.5	9.6	9.2	9.7	9.8	9.3	9.0	9.5	9.8
25 years and older	4.6	4.8	4.9	4.8	4.7	4.5	4.5	4.6	4.5	4.4	4.5	4.4	4.3	4.3	4.3
25 to 54 years	4.8	5.0	5.1	5.0	4.9	4.7	4.7	4.9	4.6	4.5	4.5	4.6	4.5	4.4	4.3
55 years and older	3.8	4.1	3.8	3.9	3.9	3.7	3.8	3.8	3.8	3.9	3.9	3.7	3.7	3.7	3.8
Men, 16 years and older	5.9	6.3	6.2	6.2	5.8	5.7	5.7	5.8	5.7	5.8	5.6	5.5	5.6	5.6	5.6
16 to 24 years	12.8	13.4	13.2	13.4	12.6	12.7	12.2	12.6	12.8	13.0	12.8	12.2	12.4	12.9	13.0
16 to 19 years	18.1	19.3	18.7	18.3	17.4	17.5	17.2	18.3	19.1	19.1	18.1	17.7	18.0	18.1	19.0
16 to 17 years	21.1	20.7	20.4	18.3	18.4	19.3	19.4	22.3	23.4	23.3	22.8	21.2	21.9	20.6	21.7
18 to 19 years	16.4	18.4	17.9	18.1	16.9	16.2	15.7	15.8	16.5	16.6	15.8	15.7	16.0	16.8	17.7
20 to 24 years	10.2	10.6	10.8	11.2	10.4	10.5	10.0	10.1	10.0	10.3	10.4	9.7	9.9	10.6	10.3
25 years and older	4.7	5.0	5.0	5.0	4.7	4.5	4.5	4.6	4.4	4.6	4.4	4.4	4.4	4.3	4.3
25 to 54 years	4.8	5.2	5.2	5.2	4.9	4.7	4.7	4.8	4.5	4.7	4.4	4.5	4.5	4.4	4.3
55 years and older	4.1	4.4	4.0	4.1	4.0	3.6	3.7	3.8	3.9	4.1	4.3	3.8	4.0	3.9	4.1
Women, 16 years and older	5.6	5.7	5.7	5.5	5.6	5.6	5.5	5.6	5.4	5.3	5.6	5.6	5.3	5.2	5.3
16 to 24 years	11.1	11.4	11.3	10.7	10.7	11.3	11.2	10.8	10.3	11.1	11.2	11.7	10.7	10.6	11.3
16 to 19 years	14.9	15.6	15.4	13.0	14.7	15.9	16.0	14.7	14.5	15.3	15.6	17.5	16.1	15.2	15.3
16 to 17 years	16.6	17.5	20.1	16.6	18.2	17.1	15.9	16.9	17.3	20.1	18.7	19.4	19.7	18.6	19.3
18 t0 19 years	13.8	14.2	12.5	11.1	12.2	15.2	15.6	13.0	12.6	12.7	12.6	16.5	13.6	12.9	12.6
20 to 24 years	9.1	9.3	9.3	9.6	8.8	8.9	8.9	8.9	8.3	9.0	9.0	8.8	8.0	8.3	9.3
25 years and older	4.6	4.6	4.7	4.6	4.6	4.6	4.4	4.6	4.6	4.2	4.5	4.5	4.3	4.3	4.2
25 to 54 years	4.8	4.8	4.9	4.8	5.0	4.8	4.5	4.9	4.7	4.4	4.7	4.7	4.4	4.4	4.4
55 years and older[1]	3.6	3.7	3.4	3.5	3.5	4.1	3.9	3.5	3.3	3.3	3.8	3.8	3.9	3.5	3.3

[1] Data are not seasonally adjusted.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

10. Unemployment rates by State, seasonally adjusted

State	Sept. 2003	Aug. 2004[P]	Sept. 2004[P]	State	Sept. 2003	Aug. 2004[P]	Sept. 2004[P]
Alabama	5.8	6.0	5.7	Missouri	5.7	5.5	5.6
Alaska	8.0	7.6	7.6	Montana	4.8	4.8	5.1
Arizona	5.5	4.4	4.8	Nebraska	4.1	3.6	3.7
Arkansas	6.6	5.4	5.5	Nevada	5.3	4.0	3.9
California	6.7	5.9	5.9	New Hampshire	4.3	3.7	3.5
Colorado	6.0	5.1	4.9	New Jersey	5.8	4.8	4.8
Connecticut	5.5	4.6	4.7	New Mexico	6.6	5.4	5.3
Delaware	4.5	3.6	3.9	New York	6.4	5.6	5.5
District of Columbia	6.8	7.5	7.9	North Carolina	6.6	5.4	5.3
Florida	5.1	4.6	4.5	North Dakota	4.0	3.3	3.6
Georgia	4.5	4.2	4.1	Ohio	6.1	6.3	6.0
Hawaii	4.5	2.9	3.1	Oklahoma	5.8	4.1	4.4
Idaho	5.3	5.0	5.0	Oregon	8.2	7.4	7.3
Illinois	6.9	6.1	6.0	Pennsylvania	5.4	5.6	5.3
Indiana	5.2	5.1	5.2	Rhode Island	4.9	5.5	5.0
Iowa	4.6	4.5	4.7	South Carolina	7.0	6.4	6.9
Kansas	5.4	4.8	4.7	South Dakota	3.7	3.2	3.4
Kentucky	6.2	5.1	4.6	Tennessee	6.1	4.9	5.1
Louisiana	6.5	5.0	5.3	Texas	6.8	5.7	5.5
Maine	4.7	4.5	5.2	Utah	5.5	4.7	4.8
Maryland	4.5	4.3	4.1	Vermont	5.0	3.3	3.3
Massachusetts	5.9	5.4	4.6	Virginia	4.1	3.6	3.2
Michigan	7.6	6.7	6.8	Washington	7.7	6.2	5.6
Minnesota	5.1	4.8	4.6	West Virginia	6.0	5.5	5.0
Mississippi	6.1	5.9	6.0	Wisconsin	5.6	4.8	5.0
				Wyoming	4.3	3.7	3.9

[P] = preliminary

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted

State	Sept. 2003	Aug. 2004[P]	Sept. 2004[P]	State	Sept. 2003	Aug. 2004[P]	Sept. 2004[P]
Alabama	2,160,049	2,171,032	2,161,249	Missouri	3,029,677	3,048,875	3,038,268
Alaska	333,861	345,845	347,401	Montana	477,507	483,962	483,831
Arizona	333,861	345,845	347,401	Nebraska	979,224	990,212	991,725
Arkansas	1,263,558	1,321,281	1,326,730	Nevada	1,146,920	1,185,851	1,184,592
California	17,464,738	17,646,871	17,693,316	New Hampshire	722,716	730,469	729,402
Colorado	2,485,194	2,521,641	2,530,744	New Jersey	4,379,131	4,425,145	4,409,429
Connecticut	1,800,423	1,788,315	1,791,014	New Mexico	900,779	910,889	911,138
Delaware	418,597	424,091	427,415	New York	9,603,949	9,308,448	9,327,402
District of Columbia	301,878	301,032	304,885	North Carolina	4,253,937	4,183,628	4,156,918
Florida	8,191,765	8,400,607	8,387,744	North Dakota	347,271	350,563	351,278
Georgia	4,440,823	4,439,453	4,417,986	Ohio	5,923,631	5,875,960	5,867,088
Hawaii	624,018	630,197	630,197	Oklahoma	1,695,200	1,698,816	1,704,629
Idaho	693,057	710,466	708,364	Oregon	1,845,115	1,850,802	1,831,288
Illinois	6,340,126	6,388,300	6,426,479	Pennsylvania	6,142,682	6,275,025	6,289,636
Indiana	3,188,438	3,147,244	3,152,373	Rhode Island	573,558	568,893	567,061
Iowa	1,599,167	1,632,557	1,630,014	South Carolina	2,019,922	2,068,869	2,082,012
Kansas	1,436,282	1,471,017	1,473,426	South Dakota	425,674	424,034	425,250
Kentucky	1,962,756	1,982,539	1,981,137	Tennessee	2,606,564	2,931,130	2,941,877
Louisiana	2,040,987	2,032,997	2,059,942	Texas	10,935,870	10,963,157	10,976,345
Maine	696,561	701,541	698,132	Utah	1,190,270	1,211,405	1,214,025
Maryland	2,935,450	2,948,541	2,955,645	Vermont	351,934	354,281	352,558
Massachusetts	3,402,875	3,412,958	3,389,041	Virginia	3,782,841	3,846,077	3,828,941
Michigan	5,058,058	5,052,968	5,060,530	Washington	3,142,922	3,211,058	3,209,744
Minnesota	2,923,107	2,969,386	2,960,898	West Virginia	784,831	803,717	802,974
Mississippi	1,315,128	1,325,882	1,326,606	Wisconsin	3,089,324	3,115,623	3,116,331
				Wyoming	279,960	279,926	279,926

[P] = preliminary.

NOTE: some data in this table may differ from data published elsewhere because of the continual updating of the data base.

12. Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
TOTAL NONFARM	130,341	129,931	129,944	130,027	130,035	130,194	130,277	130,630	130,954	131,162	131,258	131,343	131,541	131,680	132,01
TOTAL PRIVATE	108,828	108,356	108,384	108,483	108,491	108,667	108,738	109,077	109,382	109,618	109,730	109,771	109,912	110,007	110,30
GOODS-PRODUCING	22,557	21,817	21,674	21,686	21,668	21,696	21,684	21,778	21,822	21,894	21,891	21,906	21,939	21,935	22,00
Natural resources and mining	583	571	569	571	570	570	572	581	585	589	587	592	591	592	59
Logging	70.4	68.5	67.9	67.6	65.9	65.1	64.2	65.9	66.7	65.6	64.5	64.5	64.6	65.0	64.
Mining	512.2	502.3	501.5	503.4	504.3	505.1	508.1	514.9	518.5	523.2	522.7	527.5	526.6	527.1	526.
Oil and gas extraction	121.9	122.9	124.1	123.9	124.6	126.9	128.9	130.0	131.0	132.3	132.0	132.2	132.7	132.9	133.
Mining, except oil and gas[1]	210.6	202.7	202.1	202.4	202.0	200.0	200.6	202.8	205.2	207.8	207.9	211.2	209.2	208.8	208.
Coal mining	74.4	70.4	69.6	69.5	69.8	69.6	70.2	70.6	71.8	72.9	73.5	75.0	74.6	74.4	74.
Support activities for mining	179.8	176.8	175.3	177.1	177.7	178.2	178.6	182.1	182.3	183.1	182.8	184.1	184.7	185.4	185.
Construction	6,716	6,722	6,754	6,771	6,774	6,812	6,791	6,853	6,872	6,909	6,911	6,916	6,930	6,945	7,01
Construction of buildings	1,574.8	1,575.9	1,579.4	1,583.9	1,585.1	1,593.3	1,590.9	1,607.6	1,609.8	1,622.9	1,625.9	1,629.7	1,635.5	1,645.3	1,656.
Heavy and civil engineering	930.6	910.7	910.8	918.8	920.7	928.0	924.0	926.8	924.7	924.3	920.9	920.2	921.9	921.0	926.
Specialty trade contractors	4,210.4	4,235.5	4,263.7	4,268.6	4,268.4	4,290.2	4,276.5	4,318.9	4,337.3	4,362.2	4,364.6	4,365.6	4,378.9	4,378.6	4,432.
Manufacturing	15,259	14,525	14,351	14,344	14,324	14,314	14,321	14,344	14,365	14,396	14,393	14,398	14,412	14,398	14,39
Production workers	10,766	10,200	10,058	10,048	10,044	10,035	10,038	10,058	10,085	10,123	10,128	10,141	10,162	10,142	10,13
Durable goods	9,483	8,970	8,854	8,874	8,868	8,869	8,882	8,889	8,924	8,946	8,955	8,955	8,986	8,978	8,98
Production workers	6,529	6,157	6,066	6,089	6,079	6,081	6,088	6,101	6,126	6,152	6,164	6,167	6,195	6,181	6,18
Wood products	554.9	536.1	533.4	536.3	536.6	536.3	538.4	539.7	540.0	543.0	543.8	544.1	545.9	544.8	549.
Nonmetallic mineral products	516.0	492.6	486.6	489.7	487.5	492.7	490.5	493.2	497.8	501.4	501.7	502.6	501.6	502.0	500.
Primary metals	509.4	476.7	463.4	464.1	464.6	432.2	462.2	462.0	462.5	464.0	465.4	467.0	465.4	464.2	464.
Fabricated metal products	1,548.5	1,478.4	1,461.3	1,468.1	1,471.2	1,471.8	1,476.6	1,478.5	1,486.7	1,494.5	1,497.6	1,501.3	1,504.7	1,505.6	1,507.
Machinery	1,229.5	1,153.5	1,137.0	1,142.5	1,140.4	1,138.7	1,141.2	1,145.1	1,152.0	1,153.3	1,156.7	1,160.4	1,163.3	1,160.8	1,160.
Computer and electronic products[1]	1,507.2	1,360.9	1,332.8	1,334.4	1,332.2	1,333.2	1,333.9	1,338.0	1,339.7	1,345.8	1,346.2	1,351.9	1,353.0	1,351.2	1,349.
Computer and peripheral equipment	250.0	225.7	219.3	219.1	217.8	219.4	219.0	218.6	218.1	218.8	217.7	217.2	217.9	217.2	215.
Communications equipment	185.8	157.0	153.9	154.4	153.0	154.8	154.8	155.0	155.1	155.9	157.1	158.2	158.5	157.8	157.
Semiconductors and electronic components	524.5	461.8	449.4	451.2	451.3	450.2	451.4	452.1	453.4	455.8	458.0	460.7	460.2	460.0	459.
Electronic instruments	450.0	429.3	425.1	425.2	425.3	423.7	423.3	426.8	427.5	430.1	429.8	432.4	433.0	433.3	435.
Electrical equipment and appliances	496.5	459.9	450.8	450.9	451.2	449.8	448.6	446.8	446.5	447.3	448.6	449.2	449.6	449.3	448
Transportation equipment	1,828.9	1,775.4	1,765.5	1,766.5	1,762.7	1,760.6	1,766.5	1,769.1	1,768.8	1,764.4	1,765.1	1,745.9	1,774.4	1,773.1	1,776
Furniture and related products	604.1	573.5	568.2	568.9	569.3	571.3	571.2	573.4	576.5	577.6	575.0	576.7	574.6	574.1	574.
Miscellaneous manufacturing	688.3	662.8	655.2	652.7	651.9	652.0	653.0	653.0	653.0	654.4	654.6	655.5	653.6	653.0	652.
Nondurable goods	5,775	5,555	5,497	5,470	5,456	5,445	5,439	5,445	5,441	5,450	5,438	5,443	5,426	5,420	5,41
Production workers	4,239	4,043	3,992	3,959	3,965	3,954	3,950	3,957	3,959	3,971	3,964	3,974	3,967	3,961	3,95
Food manufacturing	1,525.7	1,518.7	1,528.2	1,508.3	1,506.3	1,500.7	1,502.4	1,504.5	1,502.7	1,507.0	1,502.8	1,508.0	1,499.6	1,497.5	1,497.
Beverages and tobacco products	207.4	200.6	201.0	198.3	198.3	197.7	195.9	197.2	197.8	197.5	197.6	198.4	197.2	198.7	197.0
Textile mills	290.9	260.3	247.0	245.1	241.0	239.2	237.3	237.1	235.8	236.1	235.0	235.6	234.4	233.8	232.9
Textile product mills	194.6	179.8	172.6	175.2	174.3	176.9	176.6	179.7	180.1	181.4	179.7	179.3	179.4	180.0	180.6
Apparel	359.7	312.7	299.7	297.7	297.7	296.1	297.1	294.3	292.7	290.8	286.8	284.8	284.2	282.1	278.4
Leather and allied products	50.2	45.2	43.7	44.1	44.3	44.6	44.8	44.8	44.6	45.1	44.7	45.3	44.8	45.2	45.3
Paper and paper products	546.6	519.0	513.3	511.7	510.3	509.8	508.0	508.8	507.0	508.1	506.7	509.0	509.8	508.5	507.5
Printing and related support activities	706.6	680.0	673.3	673.1	670.1	667.6	665.0	664.4	663.6	665.9	667.0	663.8	662.2	659.5	658.0
Petroleum and coal products	118.1	114.6	112.6	112.0	112.4	114.3	112.9	113.1	112.6	113.1	113.8	113.6	114.1	114.1	114.3
Chemicals	927.5	7.9	899.1	897.6	895.9	893.7	894.7	894.9	896.4	895.0	895.2	894.2	891.9	891.5	889.9
Plastics and rubber products	848.0	815.9	806.3	806.5	805.8	804.8	803.9	806.3	807.5	810.2	808.6	811.2	808.8	809.0	808.5
SERVICE-PROVIDING	107,784	108,114	108,270	108,341	108,367	108,498	108,593	108,852	109,132	109,268	109,367	109,437	109,602	109,745	110,017
PRIVATE SERVICE-PROVIDING	86,271	86,538	86,710	86,797	86,823	86,971	87,054	87,299	87,560	87,724	87,839	87,865	87,973	88,072	88,303
Trade, transportation, and utilities	25,497	25,275	25,272	25,261	25,211	25,312	25,331	25,415	25,448	25,477	25,497	25,499	25,516	25,530	25,566
Wholesale trade	5,652.3	5,605.0	5,581.6	5,592.7	5,598.4	5,611.4	5,612.2	5,623.5	5,632.5	5,636.7	5,639.5	5,649.6	5,652.8	5,662.9	5,668.5
Durable goods	3,007.9	2,949.2	2,932.0	2,943.9	2,945.8	2,954.9	2,953.8	2,963.4	2,967.5	2,969.7	2,975.6	2,986.0	2,989.6	2,992.9	2,997.5
Nondurable goods	2,015.0	2,002.1	1,992.4	1,989.2	1,991.8	1,993.7	1,994.5	1,995.3	1,996.3	1,997.2	1,994.3	1,994.3	1,992.1	1,992.5	1,997.2
Electronic markets and agents and brokers	629.4	654.3	657.2	659.6	660.8	662.8	663.9	664.8	668.7	669.8	669.6	671.5	670.7	674.0	673.8
Retail trade	15,025.1	14,911.5	14,948.1	14,921.7	14,876.0	14,944.8	14,963.0	15,013.0	15,037.1	15,047.6	15,054.9	15,038.1	15,048.8	15,043.1	15,064.1
Motor vehicles and parts dealers[1]	1,879.4	1,883.5	1,889.7	1,892.9	1,893.7	1,895.4	1,900.9	1,906.9	1,910.9	1,911.4	1,908.5	1,908.1	1,904.9	1,904.9	1,904.8
Automobile dealers	1,252.8	1,255.1	1,259.6	1,258.9	1,259.5	1,261.3	1,262.9	1,263.9	1,264.7	1,263.6	1,262.3	1,259.2	1,256.8	1,253.3	1,251.8
Furniture and home furnishings stores	538.7	542.9	540.2	544.8	547.2	546.4	544.5	544.8	544.5	545.7	546.3	546.4	548.7	548.5	549.4
Electronics and appliance stores	525.3	511.9	506.5	512.8	511.9	509.3	508.2	511.7	514.1	512.6	511.5	510.7	511.6	512.7	519.7

See notes at end of table.

12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
Building material and garden supply stores	1,176.5	1,191.1	1,204.0	1,210.0	1,209.5	1,221.4	1,231.4	1,243.5	1,247.3	1,248.7	1,245.8	1,246.9	1,251.7	1,256.2	1,260.5
Food and beverage stores	2,881.6	2,840.9	2,838.7	2,821.4	2,813.9	2,826.3	2,831.3	2,838.9	2,839.9	2,845.3	2,839.7	2,834.5	2,832.9	2,834.0	2,836.7
Health and personal care stores	938.8	943.1	948.3	951.6	952.6	954.1	954.9	958.2	957.9	957.1	957.2	956.7	956.4	956.6	954.8
Gasoline stations	895.9	879.9	873.8	875.2	871.1	875..1	871.8	873.0	872.4	871.6	870.3	869.9	870.3	873.5	871.8
Clothing and clothing accessories stores	1,312.5	1,296.7	1,302.6	1,297.1	1,301.0	1,304.3	1,311.3	1,321.8	1,328.0	1,335.5	1,346.5	1,349.0	1,355.2	1,350.3	1,354.2
Sporting goods, hobby, book, and music stores	661.3	645.0	642.0	641.6	633.2	635.9	636.8	636.5	635.8	636.1	635.7	635.5	638.4	638.1	639.1
General merchandise stores[1]	2,812.0	2,815.2	2,842.9	2,826.4	2,793.4	2,822.7	2,822.5	2,824.4	2,831.0	2,830.5	2837.4	2825.3	2832.8	2814.6	2815.5
Department stores	1,684.0	1,618.8	1,623.5	1,612.6	1,601.3	1,603.4	1,602.7	1,604.9	16.7	1,610.9	1,614.9	1,609.9	1,607.9	1,600.5	1,599.7
Miscellaneous store retailers	959.5	934.1	933.5	930.9	924.4	929.6	924.6	926.9	927.9	925.7	928.4	926.2	927.1	924.6	927.7
Nonstore retailers	443.7	427.5	425.9	417.3	424.1	424.3	424.8	427.4	429.8	427.4	427.6	428.9	427.8	429.1	429.9
Transportation and warehousing	4,223.6	4,176.7	4,162.9	4,168.0	4,157.0	4,175.9	4,175.8	4,197.0	4,196.5	4,209.9	4220.9	4228.3	4232.5	4240.3	4249.9
Air transportation	563.5	527.3	506.1	511.5	512.9	510.2	511.6	512.9	513.3	514.7	513.8	512.4	511.8	512.3	513.7
Rail transportation	217.8	215.4	215.2	215.5	215.5	215.4	215.7	216.0	216.3	216.4	217.3	217.8	217.4	217.9	217.9
Water transportation	52.6	52.5	52.5	50.9	50.0	50.6	48.8	49.2	50.6	51.1	51.7	51.7	50.3	50.3	51.0
Truck transportation	1,339.3	1,328.0	1,329.3	1,335.7	1,338.7	1,343.6	1,344.1	1,346.4	1,352.2	1,353.9	1,353.9	1,361.9	1,363.7	1,368.7	1,368.0
Transit and ground passenger transportation	380.8	380.3	389.2	385.7	385.0	382.3	380.1	380.5	372.3	381.5	374.6	374.2	374.5	374.7	377.0
Pipeline transportation	41.7	40.0	39.0	38.7	38.8	38.3	38.2	38.1	38.1	38.3	38.4	38.5	38.5	38.6	38.5
Scenic and sightseeing transportation	25.6	28.0	29.0	28.7	29.4	28.7	29.7	31.4	31.1	30.6	32.6	32.6	32.7	32.9	32.9
Support activities for transportation	524.7	516.3	514.3	512.4	511.6	514.1	515.5	518.5	519.1	519.5	520.8	523.7	525.1	525.3	527.9
Couriers and messengers	560.9	566.6	565.0	564.7	559.0	566.9	567.7	572.1	570.9	572.8	578.2	579.2	580.4	581.1	580.8
Warehousing and storage	516.7	522.3	522.6	524.2	516.1	525.8	524.4	531.9	532.6	531.1	534.0	536.3	538.1	538.5	542.2
Utilities	596.2	580.8	579.2	578.9	579.3	580.2	580.0	581.2	582.1	582.3	581.7	582.6	582.0	583.3	583.5
Information	3,395	3,198	3,166	3,172	3,175	3,163	3,169	3,169	3,173	3,177	3,182	3,173	3,166	3,158	3,163
Publishing industries, except Internet	964.1	926.4	918.0	918.4	917.4	914.0	915.1	915.3	916.3	916.2	916.6	914.7	914.3	914.3	913.6
Motion picture and sound recording industries	387.9	376.1	373.4	382.7	385.2	379.7	382.7	381.2	385.7	390.8	394.9	391.0	388.0	388.7	395.9
Broadcasting, except Internet	334.1	327.0	326.0	327.0	329.5	329.7	331.8	333.0	333.3	335.4	335.5	336.4	336.6	336.9	338.1
Internet publishing and broadcasting	33.7	30.0	29.9	30.4	30.4	30.8	31.9	31.9	32.5	32.5	33.6	33.6	34.2	34.6	35.7
Telecommunications	1,186.5	1,082.6	1,065.2	1,062.2	1,061.2	1,061.3	1,058.2	1,055.0	1,051.9	1,047.3	1,044.8	1,042.3	1,037.5	1,027.9	1,024.3
ISPs, search portals, and data processing	441.0	407.5	404.8	402.6	402.6	400.1	401.1	403.7	404.0	405.1	406.5	404.9	404.3	404.7	406.4
Other information services	47.3	48.1	48.3	48.2	48.2	47.8	48.0	48.6	49.6	49.6	50.0	49.8	50.0	49.7	49.1
Financial activities	7,847	7,974	7,990	7,985	7,981	7,981	7,989	8,003	8,015	8,029	8,049	8,044	8,053	8,077	8,094
Finance and insurance	5,817.3	5,920.5	5,930.2	5,922.7	5,916.5	5,917.1	5,924.7	5,933.0	5,947.7	5,946.0	5,960.4	5,951.9	5,962.4	5,973.6	5,989.7
Monetary authorities—central bank	23.4	22.7	22.5	22.5	22.5	22.4	22.4	22.3	22.3	21.8	21.9	21.8	21.8	21.8	21.6
Credit intermediation and related activities[1]	2,686.0	2,785.6	2,801.0	2,790.3	2,783.3	2,785.3	2,787.2	2,793.8	2,802.1	2,800.8	2,809.9	2,804.1	2,807.3	2,815.4	2,823.5
Depository credit intermediation[1]	1,733.0	1,752.1	1,760.1	1,758.1	1,757.1	1,758.7	1,762.6	1,762.8	1,765.0	1,765.2	1,768.8	1,766.9	1,768.3	1,772.4	1,776.2
Commercial banking	1,278.1	1,281.1	1,284.4	1,280.5	1,278.9	1,280.4	1,283.5	1,284.1	1,285.0	1,284.2	1,285.9	1,284.0	1,283.0	1,287.3	1,290.2
Securities, commodity contracts, investments	789.4	764.4	762.0	769.1	771.9	773.8	778.2	780.8	781.0	782.8	787.2	787.8	791.6	793.0	800.9
Insurance carriers and related activities	2,233.2	2,266.1	2,264.7	2,261.2	2,258.1	2,255.8	2,257.4	2,257.1	2,259.5	2,262.7	2,263.8	2,260.2	2,263.9	2,265.8	2,266.4
Funds, trusts, and other financial vehicles	85.4	81.7	80.0	79.6	80.7	79.8	79.5	79.0	78.8	77.9	77.6	78.0	77.8	77.6	77.3
Real estate and rental and leasing	2,029.8	2,053.6	2,060.2	2,062.7	2,064.0	2,063.6	2,064.5	2,069.5	2,071.6	2,083.1	2,088.1	2,092.0	2,090.6	2,193.1	2,104.0
Real estate	1,352.9	1,384.4	1,390.6	1,394.5	1,395.7	1,397.7	1,400.2	1,405.8	1,409.2	1,418.7	1,418.8	1,422.1	1,424.1	1,431.1	1,433.4
Rental and leasing services	649.1	640.8	639.9	639.0	638.3	636.0	634.2	634.1	633.2	635.4	640.5	641.4	638.0	643.7	642.5
Lessors of nonfinancial intangible assets	27.6	28.4	29.7	29.2	30.0	29.9	30.1	29.6	29.2	29.0	28.8	28.5	28.5	28.3	28.1
Professional and business services	15,976	15,999	16,070	16,114	16,159	16,172	16,196	16,237	16,363	16,432	16,457	16,490	16,518	16,562	16,659
Professional and technical services[1]	6,675.6	6,623.5	6,624.1	6,647.9	6,669.3	6,657.9	6,658.1	6,679.8	6,701.4	6,708.1	6,732.6	6,739.9	6,762.0	6,788.5	6,817.2
Legal services	1,115.3	1,136.8	1,140.4	1,142.9	1,140.5	1,138.7	1,139.2	1,138.4	1,141.9	1,143.3	1,146.3	1,148.2	1,146.2	1,149.3	1,149.1
Accounting and bookkeeping services	837.3	815.6	801.5	810.6	826.6	815.2	813.3	812.8	818.5	806.3	811.6	811.9	815.3	817.7	824.2
Architectural and engineering services	1,246.1	1,228.0	1,230.9	1,233.9	1,235.2	1,230.9	1,240.0	1,246.4	1,254.1	1,258.3	1,261.9	1,264.4	1,269.3	1,274.4	1,282.6

See notes at end of table.

12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[p]	Oct.[p]
Computer systems design and related services	1,152.8	1,108.3	1,107.0	1,105.7	1,105.7	1,104.6	1,099.8	1,103.5	1,103.5	1,110.1	1,117.7	1,120.5	1,129.7	1,136.4	1,143.3
Management and technical consulting services	734.4	747.3	755.6	760.6	764.0	765.4	767.9	774.0	780.9	785.9	791.4	792.2	794.3	795.9	798.6
Management of companies and enterprises	1,705.4	1,675.5	1,669.1	1,671.6	1,670.2	1,675.1	1,675.6	1,676.6	1,679.7	1,683.3	1,684.5	1,685.9	1,682.5	1,677.2	1,677.9
Administrative and waste services	7,595.2	7,698.3	7,776.3	7,794.5	7,819.2	7,838.5	7,862.4	7,880.1	7,982.3	8,040.1	8,040.0	8,064.3	8,073.0	8,096.1	8,162.2
Administrative and support services[1]	7,276.8	73,764.0	7,456.0	7,473.7	7,496.3	7,517.5	7,539.6	7,556.8	7,657.0	7,715.6	7,713.0	7,738.1	7,746.6	7,770.2	7,837.3
Employment services[1]	3,246.5	3,336.2	3,402.0	3,427.6	3,461.3	3,473.8	3,493.8	3,492.3	3,553.7	3,591.5	3,573.4	3,606.8	3,607.8	3,641.1	3,695.8
Temporary help services	2,193.7	2,243.2	2,291.7	2,319.4	2,355.3	2,344.3	2,370.4	2,380.3	2,423.8	2,451.7	2,449.4	2,460.2	2,474.7	2,508.2	2,555.8
Business support services	756.6	747.4	753.2	746.7	745.1	739.0	739.8	746.0	748.6	751.2	754.0	749.9	751.5	745.7	750.8
Services to buildings and dwellings	1,606.1	1,631.7	1,639.6	1,639.4	1,635.9	1,637.1	1,639.5	1,646.2	1,674.5	1,686.0	1,694.1	1,691.5	1,691.6	1,690.4	1,690.4
Waste management and remediation services	318.3	321.9	320.3	320.8	322.9	321	322.8	323.3	325.3	324.5	327	326.2	326.4	325.9	326.9
Educational and health services	16,199	16,577	16,678	16,705	16,731	16,746	16,764	16,813	16,854	16,871	16,897	16,901	16,965	16,984	17,046
Educational services	2,642.8	2,688.5	2,707.7	2,723.1	2,728.0	2,729.3	2,727.4	2,736.0	2,740.8	2,731.1	2,727.4	2,731.2	2,746.4	1,756.4	2,777.9
Health care and social assistance	13,555.7	13,888.0	13,970.0	13,981.5	14,003.2	14,017.1	14,036.8	14,077.1	14,113.1	14,140.1	14,169.8	14,169.3	14,218.3	14,227.9	14268.5
Ambulatory health care services[1]	4,633.2	4,776.0	4,812.8	4,818.7	4,831.0	4,840.3	4,855.3	4,868.0	4,883.6	4,896.8	4,909.6	4,920.8	4,935.1	4,939.3	4,961.4
Offices of physicians	1,967.8	2,003.8	2,018.5	2,023.3	2,030.0	2,032.3	2,034.4	2,043.5	2,046.1	2,049.6	2,053.9	2,057.5	2,062.1	2,068.5	2,076.6
Outpatient care centers	413.0	423.1	423.3	426.4	425.0	427.8	431.1	430.3	432.2	435.1	436.0	437.6	438.0	437.0	437.5
Home health care services	679.8	727.1	737.7	735.7	739.9	740.2	741.5	743.8	748.4	751.7	754.2	756.8	760.1	760.7	765.4
Hospitals	4,159.6	4,252.5	4,268.9	4,278.1	4,283.9	4,287.8	4,284.1	4,298.0	4,305.1	4,315.4	4,318.3	4,322.0	4,330.5	4,332.0	4,337.6
Nursing and residential care facilities[1]	2,743.3	2,784.3	2,794.2	2,792.8	2,793.0	2,792.1	2,791.1	2,798.4	2,802.8	2,806.3	2,809.0	2,812.0	2,814.0	2,819.5	2,821.4
Nursing care facilities	1,573.2	1,582.8	1,585.2	1,584.1	1,581.7	1,580.3	1,578.7	1,582.1	1,584.0	1,585.3	1,586.5	1,586.7	1,586.3	1,586.2	1,586.3
Social assistance[1]	2,019.7	2,075.2	2,094.1	2,091.9	2,095.3	2,096.9	2,106.3	2,112.7	2,121.6	2,121.6	2,132.9	2,114.5	2,138.7	2,137.1	2,148.1
Child day care services	744.1	760.5	771.6	766.3	770	766.3	772.2	773.7	777.6	777.1	786	752.1	792.7	782.8	788.8
Leisure and hospitality	11,986	12,128	12,147	12,178	12,192	12,218	12,229	12,271	12,303	12,331	12,339	12,344	12,341	12,351	12,364
Arts, entertainment, and recreation	1,782.6	1,801.0	1,796.9	1,799.4	1,795.2	1,801.4	1,796.7	1,798.7	1,791.1	1,793.1	1,792.0	1,791.9	1,785.6	1,792.7	1,786.3
Performing arts and spectator sports	363.7	370.2	369.6	371.7	368.8	369.4	366.5	364.6	361.4	358.8	359.3	357.1	356.0	363.2	363.8
Museums, historical sites, zoos, and parks	114.0	114.1	114.2	113.3	113.1	113.4	113.7	114.2	114.6	115.6	116.1	116.6	116.7	116.3	116.1
Amusements, gambling, and recreation	1,305.0	1,316.6	1,313.1	1,314.4	1,313.3	1,318.6	1,316.5	1,319.9	1,315.1	1,318.7	1,316.6	1,318.2	1,312.9	1,313.2	1,306.4
Accommodations and food services	10,203.2	10,324.4	10,350.4	10,378.9	10,396.3	10,416.5	10,432.3	10,742.0	10,511.8	105,837.9	10,546.7	10,551.7	10,555.6	10,558.1	10,577.9
Accommodations	1,778.6	1,765.2	1,733.7	1,751.7	1,763.0	1,752.1	1,754.4	1,753.4	1,758.5	1,758.5	1,764.7	1,764.4	1,767.9	1,765.3	1,766.4
Food services and drinking places	8,424.6	8,559.2	8,616.7	8,627.2	8,633.3	8,664.4	8,677.9	8,718.6	8,753.3	8,779.4	8,782.0	8,787.7	8,787.7	8,792.8	8,811.5
Other services	5,372	5,393	5,387	5,382	5,374	5,379	5,376	5,391	5,404	5,407	5,418	5,414	5,414	5,410	5,411
Repair and maintenance	1,246.9	1,236.2	1,237.6	1,234.4	1,228.5	1,233.5	1,230.5	1,239.4	1,238.2	1,237.7	1,235.1	1,236.3	1,235.2	1,236.8	1,238.4
Personal and laundry services	1,257.2	1,258.2	1,254.6	1,254.1	1,250.2	1,251.2	1,247.6	1,255.9	1,260.5	1,265.5	1,268.4	1,262.1	1,259.9	1,254.1	1,253.8
Membership associations and organizations	2,867.8	2,898.0	2,895.2	2,893.9	2,895.7	2,894.5	2,898.3	2,895.2	2,904.8	2,903.7	2,914.9	2,915.9	2,919.1	5,919.2	2,919.2
Government	21,513	21,575	21,560	21,544	21,544	21,527	21,539	21,553	21,572	21,544	21,528	21,572	21,629	21,673	21,714
Federal	2,767	2,756	2,736	2,723	2,720	2,715	2,716	2,710	2,727	2,712	2,716	2,710	2,712	2,710	2,704
Federal, except U.S. Postal Service	1,923.8	1,947.0	1,932.9	1,924.9	1,928.9	1,921.5	1,923.8	1,921.1	1,939.5	1,925.7	1,930.5	1,922.5	1,926.3	1,926.3	1,920.9
U.S. Postal Service	842.4	809.1	803.3	798.1	791.4	793.1	791.7	789.1	787.3	786.5	785.4	787.2	785.3	784.0	782.9
State	5,029	5,017	5,031	5,023	5,027	5,007	5,018	5,023	5,019	5,004	5,004	5,019	5,035	5,052	5,065
Education	2,242.8	2,266.4	2,290.4	2,282.5	2,285.7	2,268.0	2,279.6	2,283.2	2,278.3	2,261.4	2,257.8	2,271.1	2,285.2	2,302.3	2,312.5
Other State government	2,786.3	2,750.7	2,740.4	2,740.0	2,740.9	2,738.9	2,738.4	2,739.7	2,740.6	2,742.8	2,746.1	2,747.8	2,749.4	1,749.2	2,752.2
Local	13,718	13,802	13,793	13,798	13,797	13,805	13,805	13,820	13,826	13,828	13,808	13,843	13,882	13,911	13,945
Education	7,654.4	7,699.1	7,687.0	7,684.5	7,687.1	7,692.2	7,694.3	7,704.7	7,710.9	7,710.2	7,695.1	7,715.7	7,758.4	7,778.2	7,810.6
Other local government	6,063.2	6,104.0	6,105.9	6,113.1	6,109.7	6,112.7	6,110.8	6,114.8	6,115.4	6,117.9	6,113.3	6,116.8	6,123.2	6,132.7	6,133.9

[1] Includes other industries not shown separately.

p = preliminary.

NOTE: Data reflect the conversion to the 2002 version of the North American industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

13. Average weekly hours of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[p]	Oct.[p]
TOTAL PRIVATE	33.9	33.7	33.7	33.8	33.6	33.8	33.8	33.8	33.7	33.8	33.6	33.8	33.7	33.8	33.8
GOODS-PRODUCING	39.9	39.8	39.9	40.1	39.9	40.2	40.3	40.2	40.0	40.3	40.0	40.1	40.1	40.1	40.0
Natural resources and mining	43.2	43.6	43.7	43.9	43.6	44.5	44.1	44.2	44.3	44.2	43.9	44.1	44.4	44.6	45.1
Construction	38.4	38.4	38.4	38.5	38.1	38.5	38.5	38.6	38.2	38.3	38.1	38.4	38.1	38.3	38.3
Manufacturing	40.5	40.4	40.5	40.8	40.6	41.0	41.0	40.9	40.7	41.1	40.8	40.9	40.9	40.8	40.7
Overtime hours	4.2	4.2	4.3	4.5	4.5	4.5	4.6	4.6	4.5	4.6	4.6	4.6	4.6	4.6	4.5
Durable goods	40.8	40.8	40.9	41.3	41.2	41.5	41.5	41.4	41.2	41.6	41.2	41.3	41.3	41.3	41.2
Overtime hours	4.2	4.3	4.4	4.7	4.7	4.7	4.8	4.8	4.7	4.8	4.7	4.7	4.7	4.7	4.7
Wood products	39.9	40.4	40.6	41.2	41.0	40.9	41.1	41.0	41.0	41.4	40.5	40.7	40.9	40.4	40.3
Nonmetallic mineral products	42.0	42.2	42.1	42.4	42.3	42.5	42.5	42.9	42.3	42.0	41.8	42.1	42.3	42.4	42.3
Primary metals	42.4	42.3	42.3	42.7	42.7	43.1	43.0	43.2	43.1	43.4	43.5	43.3	43.3	43.1	43.0
Fabricated metal products	40.6	40.7	40.8	40.9	40.8	41.2	41.2	41.1	41.0	41.3	41.0	41.2	41.2	41.2	41.1
Machinery	40.5	40.8	40.9	41.1	41.1	41.8	41.8	41.7	41.6	42.3	42.0	42.0	42.1	42.3	42.2
Computer and electronic products	39.7	40.4	40.7	40.7	40.4	40.8	41.2	40.7	40.5	40.8	40.5	40.9	40.5	40.4	40.3
Electrical equipment and appliances	40.1	40.6	40.9	40.8	40.7	41.1	40.7	40.8	40.8	41.6	40.8	40.8	41.0	40.7	40.8
Transportation equipment	42.5	41.9	41.9	42.7	42.7	42.8	42.9	42.8	42.4	42.8	42.3	42.4	42.5	42.4	42.3
Furniture and related products	39.2	38.9	39.1	39.9	39.7	39.7	39.4	39.6	39.5	40.0	39.7	39.4	39.5	39.3	39.0
Miscellaneous manufacturing	38.6	38.4	38.3	38.9	38.5	39.0	38.7	38.7	38.3	38.9	38.4	38.5	38.5	38.3	38.3
Nondurable goods	40.1	39.8	39.9	40.1	39.9	40.2	40.3	40.1	40.0	40.3	40.1	40.1	40.2	40.1	39.9
Overtime hours	4.2	4.1	4.1	4.3	4.2	4.3	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.2
Food manufacturing	39.6	39.3	39.3	39.2	39.1	39.5	39.4	39.3	39.1	39.6	39.4	39.3	39.3	39.5	39.2
Beverage and tobacco products	39.4	39.1	38.8	39.9	39.1	39.6	40.3	39.4	39.6	39.2	38.7	39.2	39.5	39.1	38.2
Textile mills	40.6	39.1	39.1	40.0	39.7	40.0	40.0	40.2	39.5	40.3	40.3	40.5	40.5	40.2	40.0
Textile product mills	39.2	39.6	40.4	40.0	39.8	39.4	39.9	38.8	38.3	38.8	38.9	38.5	38.7	38.9	38.9
Apparel	36.7	35.6	35.8	36.2	35.8	35.7	36.2	36.3	35.9	36.1	35.9	36.1	36.1	36.1	35.6
Leather and allied products	37.5	39.3	38.9	39.3	40.3	39.8	39.5	39.4	39.1	38.4	38.0	37.2	37.8	37.8	37.7
Paper and paper products	41.8	42.1	41.5	41..9	41.8	41.9	42.0	41.8	41.9	42.6	42.0	42.4	42.5	42.2	42.0
Printing and related support activities	38.4	38.2	38.5	38.4	38.2	38.6	38.6	38.4	38.4	38.6	38.5	38.6	38.5	38.3	38.2
Petroleum and coal products	43.0	44.5	44.9	45.6	44.2	43.8	44.1	43.7	43.9	45.0	45.0	45.0	46.3	45.9	45.1
Chemicals	42.3	42.4	42.0	42.7	42.5	42.9	43.2	43.0	43.0	42.9	42.6	42.8	42.7	42.7	42.7
Plastics and rubber products	40.6	40.4	40.6	40.7	40.4	40.8	40.9	40.9	40.7	40.9	40.8	40.5	40.5	40.2	40.2
PRIVATE SERVICE-PROVIDING	32.5	32.4	32.3	32.4	32.2	32.4	32.4	32.4	32.3	32.4	32.3	32.4	32.4	32.5	32.4
Trade, transportation, and utilities	33.6	33.5	33.6	33.6	33.5	33.6	33.7	33.6	33.5	33.5	33.3	33.4	33.5	33.6	33.6
Wholesale trade	38.0	37.8	38.0	38.0	37.8	37.9	38.0	38.0	38.0	37.8	37.6	37.8	37.6	37.8	37.7
Retail trade	30.9	30.9	30.9	30.9	30.8	31.0	30.9	30.8	30.7	30.7	30.5	30.6	30.7	30.8	30.8
Transportation and warehousing	36.8	36.9	37.1	37.0	36.7	36.9	37.2	36.9	36.9	37.3	36.9	37.1	37.2	37.3	37.3
Utilities	40.9	41.1	41.0	41.4	40.8	40.8	41.0	41.2	41.2	41.3	41.1	41.0	40.9	41.4	40.7
Information	36.5	36.2	36.1	36.3	36.2	36.2	36.3	36.3	36.3	36.4	36.5	36.4	36.4	36.3	36.2
Financial activities	35.6	35.5	35.5	35.5	35.3	35.7	35.5	35.5	35.6	35.8	35.5	35.6	35.5	35.5	35.6
Professional and business services	34.2	34.1	34.0	34.1	33.8	34.1	34.2	34.1	34.1	34.2	33.9	34.2	34.2	34.5	34.3
Education and health services	32.4	32.3	32.3	32.4	32.4	32.4	32.4	32.4	32.4	32.5	32.5	32.6	32.5	32.5	32.6
Leisure and hospitality	25.8	25.6	25.6	25.7	25.6	25.7	25.8	25.7	25.7	25.7	25.7	25.6	25.5	25.5	25.6
Other services	32.0	31.4	31.3	31.2	31.0	31.1	31.1	31.2	31.1	31.2	31.0	31.1	31.1	31.1	31.1

[1] Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

p = preliminary.

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

14. Average hourly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		2004												
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[p]	Oct.[p]
TOTAL PRIVATE															
Current dollars	$14.95	$15.35	$15.43	$15.46	$15.45	$15.49	$15.52	$15.55	$15.59	$15.63	$15.66	$15.71	$15.76	$15.78	$15.83
Constant (1982) dollars	8.24	8.27	8.28	8.23	8.30	8.27	8.27	8.24	8.25	8.21	8.20	8.23	8.26	8.26	8.25
GOODS-PRODUCING	16.33	16.80	16.90	16.94	16.97	17.00	17.06	17.08	17.13	17.13	17.16	17.19	17.24	17.30	17.31
Natural resources and mining	17.19	17.58	17.72	17.79	17.91	17.95	18.01	18.10	18.08	18.10	18.24	18.15	18.12	18.09	18.20
Construction	18.52	18.95	19.06	19.06	19.04	19.11	19.18	19.17	19.20	19.20	19.19	19.22	19.25	19.28	19.33
Manufacturing	15.29	15.74	15.83	15.89	15.93	15.94	15.99	16.01	16.08	16.08	16.13	16.16	16.23	16.30	16.37
Excluding overtime	14.54	14.96	15.03	15.06	15.09	15.11	15.14	15.16	15.24	15.23	15.27	15.30	15.37	15.43	15.42
Durable goods	16.02	16.46	16.54	16.58	16.64	16.63	16.68	16.69	16.75	16.75	16.78	16.81	16.90	16.99	16.98
Nondurable goods	14.15	14.63	14.72	14.79	14.81	14.85	14.89	14.93	15.00	15.02	15.08	15.12	15.15	15.19	15.12
PRIVATE SERVICE-PROVIDING	14.56	14.96	15.03	15.06	15.05	15.08	15.10	15.13	15.17	15.23	15.26	15.31	15.36	15.38	15.43
Trade,transportation, and utilities	14.02	14.34	14.41	14.44	14.41	14.45	14.49	14.50	14.57	14.61	14.65	14.70	14.73	14.75	14.76
Wholesale trade	16.98	17.36	17.47	17.47	17.46	17.53	17.54	17.54	17.60	17.63	17.67	17.71	17.70	17.76	17.82
Retail trade	11.67	11.90	11.95	11.97	11.95	11.95	11.98	11.99	12.01	12.06	12.10	12.12	12.16	12.16	12.16
Transportation and warehousing	15.76	16.25	16.32	16.35	16.33	16.46	16.52	16.53	16.71	16.75	16.82	16.89	16.99	16.95	17.01
Utilities	23.96	24.76	25.17	25.36	25.13	25.32	25.35	25.38	25.67	25.46	25.44	25.57	25.54	25.73	25.75
Information	20.20	21.01	21.21	21.10	20.99	21.15	21.24	21.25	21.29	21.42	21.30	21.45	21.53	21.61	21.59
Financial activities	16.17	17.13	17.29	17.30	17.30	17.35	17.32	17.41	17.46	17.49	17.50	17.55	17.58	17.62	17.73
Professional and business services	16.81	17.20	17.25	17.29	17.25	17.24	17.25	17.27	17.29	17.36	17.42	17.44	17.56	17.52	17.64
Education and health services	15.21	15.64	15.73	15.77	15.81	15.87	15.90	15.96	15.99	16.06	16.12	16.18	16.19	16.22	16.24
Leisure and hospitality	8.58	8.76	8.78	8.82	8.84	8.85	8.86	8.87	8.86	8.86	8.85	8.87	8.91	8.95	9.00
Other services	13.72	13.84	13.80	13.81	13.80	13.84	13.84	13.87	13.84	13.85	13.88	13.90	13.92	13.96	13.98

[1] Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

p = preliminary.

NOTE: Data reflect the conversion to the 2002 version of the North American industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

15. Average hourly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry

Industry	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
TOTAL PRIVATE	$14.95	$15.35	$15.42	$15.52	$15.48	$15.56	$15.60	$15.55	$15.59	$15.63	$15.57	$15.59	$15.67	$15.80	$15.84
Seasonally adjusted	15.18	15.47	15.41	15.43	15.45	15.49	15.52	15.55	15.59	15.63	15.66	15.71	15.76	15.78	15.78
GOODS-PRODUCING	16.33	16.8	16.95	16.98	17.03	16.94	16.95	17.00	17.09	17.10	17.14	17.18	17.28	17.41	17.37
Natural resources and mining	17.19	17.58	17.69	17.15	17.97	18.00	18.05	18.17	18.14	18.06	18.18	18.07	18.01	18.03	18.18
Construction	18.52	18.95	19.13	19.08	19.19	19.01	19.07	19.07	19.15	19.15	19.12	19.25	19.33	19.42	19.46
Manufacturing	15.29	15.74	15.81	15.92	16.05	15.98	15.99	16.01	16.07	16.05	16.09	16.04	16.17	16.37	16.25
Durable goods	16.02	16.46	16.55	16.64	16.78	16.66	16.68	16.69	16.72	16.71	16.75	16.61	16.85	17.08	16.99
Wood products	12.33	12.71	12.82	12.95	12.93	12.90	12.91	12.93	13.00	13.03	12.98	13.03	13.01	13.13	13.03
Nonmetallic mineral products	15.40	15.77	15.95	15.99	15.98	16.03	16.00	16.02	16.19	16.18	16.24	16.38	16.29	16.51	16.33
Primary metals	17.68	18.13	18.25	18.32	18.39	18.39	18.36	18.33	18.52	18.48	18.51	18.66	18.58	18.91	18.68
Fabricated metal products	14.68	15.01	15.03	15.06	15.23	15.20	15.18	15.25	15.21	15.20	15.23	15.26	15.27	15.43	15.41
Machinery	15.92	16.30	16.35	16.49	16.62	16.53	16.50	16.49	16.53	16.53	16.56	16.68	16.72	16.83	16.82
Computer and electronic products	16.20	16.68	16.77	16.78	16.85	16.81	16.92	16.93	17.01	17.11	17.21	17.29	17.37	17.45	17.46
Electrical equipment and appliances	13.98	14.35	14.37	14.54	14.68	14.50	14.58	14.68	14.80	14.83	14.88	14.88	14.98	15.03	14.93
Transportation equipment	20.64	21.25	21.35	21.48	21.74	21.38	21.37	21.34	21.36	21.29	21.36	20.77	21.54	21.98	21.86
Furniture and related products	12.61	12.98	13.01	13.08	13.08	12.95	12.92	12.96	13.09	13.04	13.10	13.11	13.27	13.37	13.25
Miscellaneous manufacturing	12.91	13.30	13.47	13.53	13.60	13.68	13.75	13.78	13.70	13.76	13.81	13.89	13.87	13.97	13.90
Nondurable goods	14.15	14.63	14.67	14.80	14.88	14.89	14.88	14.90	15.01	14.98	15.03	15.14	15.09	15.24	15.08
Food manufacturing	12.55	12.80	12.77	12.91	12.95	12.91	12.87	12.89	12.96	12.94	13.00	13.05	12.99	13.08	12.81
Beverages and tobacco products	17 73	17.96	18.05	18.64	18.58	18.88	18.76	19.13	19.60	19.55	19.39	19.29	19.10	19.16	19.15
Textile mills	11.73	12.00	12.02	12.08	12.21	12.11	12.13	12.09	12.23	12.08	12.15	12.07	12.08	12.24	12.17
Textile product mills	10.96	11.24	11.37	11.35	11.44	11.45	11.40	11.37	11.33	11.30	11.29	11.48	11.46	11.53	11.50
Apparel	9.10	9.56	9.69	9.71	9.80	9.74	9.58	9.60	9.71	9.55	9.60	9.74	9.73	9.78	9.86
Leather and allied products	11.00	11.67	11.83	11.87	11.90	11.94	11.76	11.64	11.65	11.49	11.59	11.68	11.68	11.55	11.75
Paper and paper products	16.85	17.32	17.44	17.58	17.60	17.63	17.55	17.59	17.84	17.88	17.86	17.91	17.84	18.20	17.98
Printing and related support activities	14.93	15.37	15.41	15.48	15.56	15.53	15.57	15.61	15.54	15.51	15.54	15.71	15.86	15.97	15.99
Petroleum and coal products	23.04	23.64	23.63	24.00	24.06	24.13	24.32	24.82	24.48	24.41	24.24	24.35	24.07	24.52	24.34
Chemicals	17.97	18.52	18.66	18.77	18.79	18.83	18.85	18.87	19.02	19.05	19.20	19.36	19.29	19.51	19.45
Plastics and rubber products	13.55	14.18	14.19	14.27	14.47	14.43	14.45	14.45	14.58	14.55	14.59	14.69	14.66	14.75	14.51
PRIVATE SERVICE-PROVIDING	14.56	14.96	15.01	15.13	15.07	15.19	15.24	15.16	15.20	15.24	15.14	15.17	15.24	15.37	15.42
Trade, transportation, and utilities	14.02	14.34	14.38	14.44	14.31	14.50	14.58	14.53	14.64	14.64	14.61	14.62	14.66	14.79	14.76
Wholesale trade	16.98	17.36	17.42	17.56	17.46	17.56	17.60	17.47	17.60	17.67	17.58	17.66	17.69	17.74	177.80
Retail trade	11.67	11.90	11.91	11.92	11.87	11.98	12.04	12.03	12.08	12.08	12.09	12.07	12.09	12.23	12.16
Transportation and warehousing	15.76	16.25	16.31	16.40	16.33	16.46	16.58	16.51	16.73	16.72	16.80	16.86	16.98	16.94	17.02
Utilities	23.96	24.76	25.23	25.50	25.26	25.38	25.29	25.36	25.69	25.53	25.33	25.43	25.33	25.89	25.77
	20.20	21.01	21.25	21.28	21.10	21.21	21.28	21.17	21.24	21.41	21.18	21.30	21.44	21.73	21.69
Financial activities	16.17	17.13	17.25	17.42	17.26	17.35	17.47	17.37	17.45	17.62	17.38	17.44	17.58	17.60	17.72
Professional and business services	16.81	17.20	17.13	17.41	17.29	17.38	17.47	17.28	17.26	17.45	17.28	17.31	17.46	17.43	17.55
Education and health services	15.21	15.64	15.73	15.79	15.86	15.94	15.95	15.94	15.99	16.00	16.06	16.18	16.16	16.24	16.23
Leisure and hospitality	8.58	8.76	8.78	8.83	8.94	8.89	8.92	8.89	8.84	8.85	8.78	8.78	8.80	8.94	9.03
Other services	13.72	13.84	13.78	13.85	13.88	13.89	13.90	13.85	13.87	13.90	13.82	13.78	13.84	13.98	13.97

[1] Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

16. Average weekly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry

Industry	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[p]	Oct.[p]
TOTAL PRIVATE	$506.07	$517.36	$519.65	$527.68	$520.13	$518.15	$527.28	$520.93	$522.27	$531.42	$524.71	$528.50	$535.91	$530.88	$535.39
Seasonally adjusted	–	–	519.99	522.55	519.12	523.56	524.58	525.59	525.38	528.29	526.18	531.00	531.11	533.36	535.05
GOODS-PRODUCING	651.61	669.23	681.39	684.29	682.90	674.21	674.61	681.70	678.47	690.84	689.03	687.20	698.11	691.18	698.27
Natural resources and mining	741.97	766.83	778.36	784.55	781.70	784.80	786.98	797.66	794.53	798.25	809.01	802.31	806.85	796.93	829.01
Construction	711.82	727.11	744.16	730.76	714.34	712.88	711.31	732.29	721.96	741.11	738.03	754.60	755.80	730.19	755.05
Manufacturing	618.75	636.07	643.47	655.90	662.87	650.39	652.39	653.21	652.44	659.66	659.69	646.41	661.35	664.62	661.38
Durable goods	652.97	671.53	680.21	692.22	703.08	688.06	688.88	690.97	687.19	695.14	695.13	674.37	695.91	698.91	699.99
Wood products	492.00	513.92	525.62	537.43	531.42	517.29	521.56	524.96	530.40	544.65	533.48	531.62	538.61	521.26	527.72
Nonmetallic mineral products	646.91	665.11	679.47	681.17	669.56	663.64	664.00	680.85	684.84	684.41	690.20	694.51	700.47	708.28	697.29
Primary metals	749.32	767.63	771.98	785.93	799.97	796.29	787.64	790.02	800.06	803.88	808.89	791.18	798.94	809.35	799.50
Fabricated metal products	596.38	610.33	616.23	621.98	635.09	626.24	623.90	625.25	620.27	627.76	627.48	621.08	627.60	628.00	634.89
Machinery	645.55	664.79	667.08	682.69	696.38	689.30	691.35	690.93	987.65	700.87	698.83	692.22	697.22	698.45	708.12
Computer and electronic products	642.87	674.68	684.22	693.01	695.91	680.81	695.41	690.74	683.80	694.67	698.73	696.79	700.01	701.49	703.64
Electrical equipment and appliances	560.24	582.68	592.04	601.96	616.56	594.50	591.95	596.01	599.40	613.96	611.57	599.66	611.21	604.21	613.62
Transportation equipment	877.87	890.32	905.24	925.79	950.04	915.06	916.77	917.62	905.66	915.47	912.07	841.19	911.14	929.75	926.86
Furniture and related products	494.01	505.23	508.69	523.20	528.43	510.23	505.17	510.62	517.06	517.69	521.38	515.22	529.47	518.76	515.43
Miscellaneous manufacturing	499.13	510.69	515.90	530.38	533.12	532.15	533.50	534.66	524.71	535.26	530.30	527.82	534.00	529.46	533.76
Nondurable goods	566.84	582.65	588.27	600.88	602.64	594.11	595.20	596.00	595.90	602.20	604.21	602.57	606.62	611.12	603.20
Food manufacturing	496.91	502.61	505.69	515.11	514.12	504.78	499.36	498.84	497.66	511.13	512.20	512.87	514.40	521.89	507.28
Beverages and tobacco products	698.39	702.75	707.56	751.19	722.76	728.77	737.27	744.16	780.08	774.18	760.09	760.03	762.09	764.48	725.79
Textile mills	476.52	469.47	469.98	485.62	490.84	485.61	486.41	490.85	484.31	486.82	490.86	481.59	489.24	487.15	484.37
Textile product mills	429.01	445.08	458.21	456.27	464.46	447.70	450.30	441.16	435.07	436.18	444.83	435.09	443.50	445.06	448.50
Apparel	333.66	340.22	348.84	356.36	352.80	343.82	345.84	350.40	347.76	346.67	348.48	348.69	353.20	346.21	350.03
Leather and allied products	412.99	458.26	462.55	465.30	485.52	471.63	464.52	464.44	460.18	441.22	442.74	422.82	441.50	429.66	442.98
Paper and paper products	705.62	719.21	727.25	743.63	751.52	738.70	731.84	731.74	745.71	756.32	748.33	750.43	754.63	773.50	756.96
Printing and related support activities	573.05	587.42	597.91	603.72	602.17	593.25	597.89	600.99	593.63	594.03	593.63	600.12	610.61	611.65	615.62
Petroleum and coal products	990.88	1,052.97	1,068.08	1,099.20	1,061.05	1,068.96	1,074.94	1,079.67	1,062.43	1,091.13	1,095.65	1,120.10	1,097.59	1,125.47	1,102.60
Chemicals	759.53	784.56	785.59	808.99	806.09	804.04	816.21	811.41	814.06	815.34	819.84	816.99	823.68	831.13	824.68
Plastics and rubber products	549.85	572.23	578.95	586.50	596.16	585.86	588.12	589.56	594.86	595.10	599.65	583.19	589.33	590.00	583.30
PRIVATE SERVICE-PROVIDING	472.88	484.00	484.82	493.24	485.25	484.56	496.82	486.64	487.92	496.82	489.02	493.03	501.40	496.45	499.61
Trade, transportation, and utilities	471.27	481.10	483.17	486.63	480.82	477.05	488.43	482.40	486.05	493..37	489.44	494.46	498.44	496.94	494.46
Wholesale trade	644.38	657.12	661.96	676.06	659.99	656.74	670.56	658.62	665.28	674.99	661.01	665.78	672.22	667.02	668.53
Retail trade	360.81	367.28	366.83	365.94	367.97	361.80	368.42	365.71	367.23	372.06	372.37	376.58	378.42	377.91	373.31
Transportation and warehousing	579.75	597.79	603.47	615.00	602.58	597.50	613.46	604.27	610.65	627.00	621.60	627.19	641.84	628.47	634.85
Utilities	979.09	1,016.94	1,039.48	1,068.45	1,028.08	1,032.97	1,039.42	1,039.76	1,053.29	1,054.39	1,046.13	1,032.46	1,030.93	1,074.44	1,053.99
Information	738.17	761.13	769.25	783.10	761.71	763.56	776.72	760.00	764.64	777.18	775.19	773.19	788.99	788.80	785.18
Financial activities	575.51	608.87	608.93	628.86	607.55	612.10	630.67	611.42	615.99	637.84	613.51	617.38	634.64	619.52	627.29
Professional and business services	574.66	586.68	580.71	597.16	582.67	583.97	602.72	587.52	588.57	603.77	587.52	590.27	604.12	592.62	600.21
Education and health services	492.74	505.76	506.51	516.33	512.28	514.86	519.97	513.27	516.48	521.60	520.34	527.47	530.05	526.18	527.48
Leisure and hospitality	221.26	224.35	223.89	226.05	225.29	221.36	230.14	225.80	224.81	229.22	227.40	230.91	234.08	226.18	230.27
Other services	439.76	434.49	431.31	434.89	430.28	429.20	433.68	428.73	428.58	435.07	428.42	429.94	434.58	431.98	434.47

[1] Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

Dash indicates data not available. p = preliminary.

17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Private nonfarm payrolls, 278 industries											
Over 1-month span:												
2000	61.9	62.9	63.3	59.5	46.9	61.7	63.1	52.5	51.5	53.4	56.8	53.8
2001	52.2	47.8	50.4	34.4	41.4	39.2	37.1	38.8	38.3	32.4	36.7	34.9
2002	40.1	35.1	41.0	41.5	41.7	47.8	44.1	44.1	42.8	39.0	38.7	34.5
2003	41.2	35.1	38.1	41.4	42.8	40.1	40.5	39.7	49.3	46.0	51.1	49.1
2004	52.3	56.1	68.7	67.6	63.8	60.6	55.2	56.3	59.2	56.8		
Over 3-month span:												
2000	69.2	66.2	67.8	68.3	60.1	58.1	56.3	61.5	56.5	53.2	52.9	56.8
2001	52.7	50.4	50.4	43.5	38.8	34.9	36.2	37.9	34.7	35.3	30.8	32.0
2002	34.0	37.4	35.1	36.2	36.7	39.4	39.9	40.8	38.7	37.1	34.4	34.7
2003	36.5	32.6	36.3	35.1	40.5	42.6	37.4	35.4	40.1	45.5	50.5	51.1
2004	54.0	55.2	62.8	70.0	74.5	68.7	64.6	57.2	61.0	58.1		
Over 6-month span:												
2000	67.3	69.1	75.2	72.5	67.4	67.8	66.7	60.8	59.0	55.0	59.7	54.0
2001	51.8	50.0	51.8	47.3	43.5	41.5	38.1	35.4	32.2	33.1	31.5	31.1
2002	29.5	30.0	31.1	31.1	31.7	37.1	37.2	39.0	34.7	36.5	35.3	33.3
2003	33.6	31.1	31.7	31.7	33.5	37.8	36.2	36.5	40.5	39.4	42.6	41.7
2004	48.9	54.1	59.6	64.7	67.8	71.2	68.3	71.6	67.3	64.0		
Over 12-month span:												
2000	70.9	69.2	73.2	71.0	69.8	71.0	70.0	70.3	70.3	65.6	63.8	62.1
2001	59.5	59.5	53.4	49.3	48.6	45.0	43.3	43.9	39.9	37.8	37.1	34.9
2002	33.6	31.7	30.2	30.4	30.2	29.1	32.0	31.3	30.0	29.5	32.9	34.7
2003	34.5	31.5	32.9	33.5	36.2	34.4	34.7	33.1	37.6	37.4	33.1	35.4
2004	37.8	43.2	47.3	50.7	54.9	60.3	64.0	63.8	65.3	65.6		
	Manufacturing payrolls, 84 industries											
Over 1-month span:												
2000	48.2	58.3	50.0	50.0	41.1	57.1	60.7	28.6	25.0	35.1	39.9	41.1
2001	22.6	22.0	21.4	16.1	15.5	23.2	13.7	14.3	19.0	17.9	14.9	10.1
2002	21.4	18.5	23.8	35.1	29.8	32.7	40.5	28.0	31.0	11.9	15.5	17.9
2003	26.2	15.5	22.6	13.7	26.2	25.0	28.0	26.2	27.4	28.6	51.2	45.8
2004	42.9	55.4	60.1	66.1	64.9	54.2	57.1	48.2	42.3	42.3		
Over 3-month span:												
2000	53.6	53.6	56.0	54.8	44.0	44.0	51.2	47.6	32.7	25.0	23.2	38.7
2001	35.7	21.4	16.1	14.3	13.1	13.7	11.9	8.9	8.3	13.1	8.9	10.1
2002	9.5	10.1	11.3	17.9	17.3	19.0	28.0	22.0	23.8	15.5	6.5	4.8
2003	13.7	13.1	16.7	10.1	13.1	14.9	16.1	16.1	16.1	24.4	27.4	41.7
2004	48.8	51.8	59.5	66.1	71.4	65.5	65.5	51.8	53.0	42.3		
Over 6-month span:												
2000	44.0	52.4	55.4	57.7	47.6	51.8	56.0	45.2	39.3	34.5	32.1	27.4
2001	22.0	23.8	22.0	20.8	14.3	13.7	14.3	10.1	10.7	5.4	7.1	4.8
2002	6.5	8.9	7.7	8.3	7.7	14.3	14.9	10.7	12.5	10.1	8.9	8.9
2003	11.3	9.5	6.0	7.1	8.9	13.1	8.9	13.1	13.1	16.7	19.0	19.6
2004	28.6	36.9	46.4	56.5	61.3	64.9	66.7	66.1	58.9	53.6		
Over 12-month span:												
2000	41.7	39.3	47.0	50.0	46.4	52.4	51.8	49.4	46.4	40.5	35.1	33.3
2001	29.8	32.1	20.8	19.0	13.1	12.5	10.7	11.9	11.9	10.1	8.3	6.0
2002	7.1	6.0	6.0	6.5	7.1	3.6	4.8	6.0	4.8	7.1	4.8	8.3
2003	10.7	6.0	6.5	5.4	8.3	9.5	9.5	9.5	10.7	11.9	9.5	11.3
2004	9.5	19.0	16.7	26.2	29.8	40.5	50.0	50.6	53.6	56.0		

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

Data for the two most recent months are preliminary.

18. Job openings levels and rates by industry and region, seasonally adjusted

Industry and region	Levels[1] (in thousands)							Rates						
	2004							2004						
	Apr.	May	June	July	Aug.	Sept.	Oct.[P]	Apr.	May	June	July	Aug.	Sept.	Oct.[P]
Total[2]	3,135	3,105	3,022	3,237	3,195	3,294	3,330	2.3	2.3	2.3	2.4	2.4	2.4	2.5
Industry														
Total private[2]	2,778	2,746	2,640	2,894	2,859	2,934	2,950	2.5	2.4	2.3	2.6	2.5	2.6	2.6
Construction	105	108	94	88	121	113	121	1.5	1.5	1.3	1.3	1.7	1.6	1.7
Manufacturing	251	244	247	240	234	251	259	1.7	1.7	1.7	1.6	1.6	1.7	1.8
Trade, transportation, and utilities	531	521	503	567	551	591	592	2.0	2.0	1.9	2.2	2.1	2.3	2.3
Professional and business services	518	530	494	583	594	564	585	3.1	3.1	2.9	3.4	3.5	3.3	3.4
Education and health services	576	542	496	537	536	543	543	3.3	3.1	2.9	3.1	3.1	3.1	3.1
Leisure and hospitality	376	391	421	435	410	425	356	3.0	3.1	3.3	3.4	3.2	3.3	2.8
Government	354	360	380	343	337	350	382	1.6	1.6	1..7	1.6	1.5	1.6	1.7
Region[3]														
Northeast	560	526	546	545	540	562	599	2.2	2.0	2.1	2.1	2.1	2.2	2.3
South	1,191	1,164	1,164	1,280	1,259	1,245	1,311	2.5	2.5	2.4	2.7	2.6	2.6	2.7
Midwest	692	688	631	635	613	699	640	2.2	2.2	2.0	2.0	1.9	2.2	2.0
West	694	765	677	738	771	790	756	2.4	2.6	2.3	2.5	2.6	2.7	2.6

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah Washington, Wyoming.

NOTE: The job openings level is the number of job openings on the last business day o the month; the job openings rate is the number of job openings on the last business day o the month as a percent of total employment plus job openings.

[P] = preliminary.

19. Hires levels and rates by industry and region, seasonally adjusted

Industry and region	Levels[1] (in thousands)							Rates						
	2004							2004						
	Apr.	May	June	July	Aug.	Sept.	Oct.[1]	Apr.	May	June	July	Aug	Sept.	Oct.[P]
Total[2]	4,398	4,206	4,433	4,229	4,375	4,253	4,317	3.4	3.2	3.4	3.2	3.3	3.3	3.3
Industry														
Total private[2]	4,090	3,938	4,110	3,930	4,058	3,906	3,987	3.7	3.6	3.7	3.6	3.7	3.6	3.6
Construction	421	406	436	368	401	388	383	6.1	5.9	6.3	5.3	5.8	5.5	5.0
Manufacturing	354	336	370	352	356	379	323	2.5	2.3	2.6	2.4	2.5	2.6	2.2
Trade, transportation, and utilities	1,032	938	945	957	984	864	951	4.1	3.7	3.7	3.8	3.9	3.4	3.7
Professional and business services	609	631	692	621	690	689	720	3.7	3.8	4.2	3.8	4.2	4.2	4.3
Education and health services	460	451	428	418	470	401	409	2.7	2.7	2.5	2.5	2.8	2.4	2.4
Leisure and hospitality	766	739	749	760	760	782	747	6.2	6.0	6.1	6.2	6.1	6.3	6.0
Government	300	272	328	310	322	337	301	1.4	1.3	1.5	1.4	1.5	1.6	1.4
Region[3]														
Northeast	810	708	703	720	763	745	736	3.2	2.8	2.8	2.9	3.0	2.9	2.9
South	1,582	1,606	1,709	1,640	1,643	1,635	1,646	3.4	3.5	3.7	3.5	3.5	3.5	3.5
Midwest	991	956	1,009	935	945	942	1,010	3.2	3.1	3.2	3.0	3.0	3.0	3.2
West	1,093	951	1,023	685	1,018	942	893	3.8	3.3	3.6	3.0	3.5	3.3	3.1

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **Northeast**: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; **Midwest**: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The hires level is the number of hires during the entire month; the hires rate is the number of hires during the entire month as a percent of total employment.

[P] = preliminary.

20. Total separations levels and rates by industry and region, seasonally adjusted

Industry and region	Levels[1] (in thousands)							Rates						
	2004							2004						
	Apr.	May	June	July	Aug.	Sept.	Oct.[P]	Apr	May	June	July	Aug.	Sept.	Oct.[P]
Total[2]	4,088	4,040	4,069	4,074	4,134	4,158	4,159	3.1	3.1	3.1	3.1	3.1	3.2	3.2
Industry														
Total private[2]	3,843	3,761	3,789	3,793	3,894	3,856	3,891	3.5	3.4	3.5	3.5	3.5	3.5	3.5
Construction	391	367	382	364	391	350	469	5.7	5.3	5.5	5.3	5.6	5.0	6.7
Manufacturing	353	377	343	367	379	381	352	2.5	2.6	2.4	2.5	2.6	2.6	2.4
Trade, transportation, and utilities	1,013	917	927	972	951	909	935	4.0	3.6	3.6	3.8	3.7	3.6	3.7
Professional and business services	606	556	607	613	575	590	539	3.7	3.4	3.7	3.7	3.5	3.6	3.2
Education and health services	386	379	362	363	380	384	361	2.3	2.2	2.1	2.1	2.2	2.3	2.1
Leisure and hospitality	679	696	734	694	760	756	746	5.5	5.6	5.9	5.6	6.2	6.1	6.0
Government	245	268	270	273	246	306	269	1.1	1.2	1.3	1.3	1.1	1.4	1.2
Region[3]														
Northeast	716	648	704	674	717	730	693	2.9	2.6	2.8	2.7	2.8	2.9	2.7
South	1,524	1,504	1,533	1,545	1,527	1,506	1,595	3.3	3.2	3.3	3.3	3.3	3.2	3.4
Midwest	877	833	853	935	831	931	894	2.8	2.7	2.7	3.0	2.7	3.0	2.9
West	959	1,008	979	945	1,087	978	952	3.4	3.5	3.4	3.3	3.8	3.5	3.3

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The total separations level is the number of total separations during the entire month; the total separations rate is the number of total separations during the entire month as a percent of total employment.

[P] = preliminary.

21. Quits levels and rates by industry and region, seasonally adjusted

Industry and region	Levels[1] (in thousands)							Rates						
	2004							2004						
	Apr.	May	June	July	Aug.	Sept.	Oct.[P]	Apr.	May	June	July	Aug.	Sept.	Oct.[P]
Total[2]	2,278	2,173	2,284	2,265	2,252	2,248	2,259	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Industry														
Total private[2]	2,151	2,026	2,162	2,141	2,140	2,118	2,130	2.0	1.9	2.0	2.0	1.9	1.9	1.9
Construction	149	144	156	101	147	138	198	2.2	2.1	2.3	1.5	2.1	2.0	2.8
Manufacturing	189	171	171	174	165	183	173	1.3	1.2	1.2	1.2	1.1	1.3	1.2
Trade, transportation, and utilities	563	525	536	559	552	536	520	2.2	2.1	2.1	2.2	2.2	2.1	2.0
Professional and business services	323	259	322	322	308	325	284	2.0	1.6	2.0	2.0	1.9	2.0	1.7
Education and health services	245	223	225	271	239	240	235	1.5	1.3	1.3	1.6	1.4	1.4	1.4
Leisure and hospitality	429	455	480	442	476	439	454	3.5	3.7	3.9	3.6	3.9	3.6	3.7
Government	129	129	123	126	116	130	124	.6	.6	.6	.6	.5	.6	.6
Region[3]														
Northeast	390	318	334	338	339	325	333	1.6	1.3	1.3	1.3	1.3	1.3	1.3
South	888	857	910	901	897	903	888	1.9	1.8	2.0	1.9	1.9	1.9	1.9
Midwest	479	479	485	505	447	472	480	1.5	1.5	1.6	1.6	1.4	1.5	1.5
West	524	521	573	519	566	546	561	1.8	1.8	2.0	1.8	2.0	1.9	1.9

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The quits level is the number of quits during the entire month; the quits rate is the number of quits during the entire month as a percent of total employment.

[P] = preliminary.

22. Quarterly Census of Employment and Wages: 10 largest counties, fourth quarter 2003.

County by NAICS supersector	Establishments, fourth quarter 2003 - (thousands)	Employment		Average weekly wage[1]	
		December 2003 (thousands)	Percent change, December 2002-03[2]	Fourth quarter 2003	Percent change, fourth quarter 2002-03[2]
United States[3]	8,314.1	129,341.5	0.0	$767	3.6
Private industry	8,048.7	108,215.1	.0	769	3.9
Natural resources and mining	123.7	1,557.8	.1	703	4.9
Construction	804.9	6,689.5	1.2	837	2.3
Manufacturing	376.8	14,307.8	-4.2	943	6.7
Trade, transportation, and utilities	1,853.6	25,957.3	-.3	665	3.4
Information	145.2	3,165.9	-4.0	1,139	3.9
Financial activities	767.0	7,874.7	1.2	1,138	5.9
Professional and business services	1,329.4	16,113.2	.6	945	3.8
Education and health services	732.2	15,974.0	2.1	731	3.8
Leisure and hospitality	669.9	12,042.8	1.7	335	3.4
Other services	1,080.6	4,274.1	-.1	494	3.1
Government	265.3	21,126.3	-.2	757	2.4
Los Angeles, CA	356.0	4,075.3	-.5	903	4.2
Private industry	352.2	3,486.3	-.2	898	4.2
Natural resources and mining	.6	11.0	.7	955	16.9
Construction	12.9	133.9	-1.1	883	1.7
Manufacturing	17.8	485.2	-7.1	900	6.5
Trade, transportation, and utilities	53.9	794.6	-1.2	735	2.7
Information	9.2	194.9	-2.0	1,627	5.2
Financial activities	23.0	237.9	.9	1,258	7.0
Professional and business services	40.1	575.0	1.6	1,043	3.7
Education and health services	26.6	456.5	1.9	820	3.9
Leisure and hospitality	25.6	375.9	5.6	766	6.5
Other services	142.1	220.7	3.5	422	5.0
Government	3.8	589.0	-2.3	930	3.3
Cook, IL	126.7	2,539.8	-1.2	922	3.0
Private industry	125.5	2,221.9	-.9	929	3.2
Natural resources and mining	.1	1.3	-3.6	1,037	3.2
Construction	10.5	96.7	.0	1,169	-.8
Manufacturing	7.9	265.7	-5.1	975	6.3
Trade, transportation, and utilities	26.7	499.4	-.8	753	.4
Information	2.5	66.1	-4.1	1,164	.1
Financial activities	13.8	219.4	-.8	1,471	8.1
Professional and business services	26.1	405.5	-1.3	1,206	4.1
Education and health services	12.3	350.8	1.0	791	3.7
Leisure and hospitality	10.5	217.7	2.8	375	-.3
Other services	12.6	95.1	-2.0	655	3.0
Government	1.2	317.9	-3.1	871	.9
New York, NY	111.9	2,253.6	-1.0	1,480	7.2
Private industry	111.7	1,800.4	-.6	1,623	8.1
Natural resources and mining	.0	.1	.0	1,197	-6.5
Construction	2.2	30.0	-4.5	1,567	3.4
Manufacturing	3.5	46.6	-4.9	1,290	6.4
Trade, transportation, and utilities	22.1	247.6	-1.2	1,164	5.5
Information	4.3	130.6	-5.1	1,751	7.9
Financial activities	16.7	352.0	-2.0	3,034	16.1
Professional and business services	22.6	439.7	.5	1,702	2.6
Education and health services	7.8	273.8	2.4	918	7.6
Leisure and hospitality	10.1	188.2	.4	787	6.1
Other services	16.0	82.9	-1.1	871	6.1
Government	.2	453.2	-2.2	912	.1
Harris, TX	89.4	1,841.5	-.9	906	2.1
Private industry	89.0	1,595.2	-1.2	929	2.1
Natural resources and mining	1.2	62.5	8.7	2,185	-.9
Construction	6.3	135.5	-5.0	919	2.6
Manufacturing	4.7	164.0	-4.9	1,106	2.3
Trade, transportation, and utilities	21.1	403.2	-2.1	821	1.0
Information	1.4	33.8	-3.9	1,098	.4
Financial activities	9.7	113.1	1.7	1,181	4.9
Professional and business services	17.0	279.0	-1.7	1,073	3.2
Education and health services	8.8	188.3	1.5	812	1.8
Leisure and hospitality	6.5	155.2	.7	335	-.9
Other services	10.3	56.3	-3.1	539	.4
Government	.4	246.3	1.1	759	3.1
Maricopa, AZ	80.9	1,621.2	([4])	757	4.0
Private industry	80.5	1,401.8	2.2	755	3.9
Natural resources and mining	.5	9.8	-2.6	545	4.4
Construction	8.4	131.7	5.9	779	2.1
Manufacturing	3.3	128.0	-2.5	1,050	8.2
Trade, transportation, and utilities	18.6	336.4	1.5	712	3.2
Information	1.6	36.6	-4.1	872	.5
Financial activities	9.5	133.3	1.5	933	3.7
Professional and business services	18.1	261.5	4.2	776	3.5
Education and health services	7.6	160.5	5.6	842	5.0
Leisure and hospitality	5.6	155.8	.8	364	2.8
Other services	5.7	44.7	-2.6	500	2.2
Government	.5	219.4	1.6	766	3.7

See footnotes at end of table.

22. Continued—Quarterly Census of Employment and Wages: 10 largest counties, fourth quarter 2003.

County by NAICS supersector	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage[1]	
		December 2003 (thousands)	Percent change, December 2002-03[2]	Fourth quarter 2003	Percent change, fourth quarter 2002-03[2]
Dallas, TX	68.6	1,450.8	-1.4	$952	4.3
Private industry	68.2	1,294.6	-1.4	970	4.8
Natural resources and mining	.5	6.8	-20.5	2,680	22.7
Construction	4.5	73.0	-2.2	909	5.5
Manufacturing	3.5	144.9	-3.1	1,075	6.8
Trade, transportation, and utilities	15.8	326.1	-3.3	898	5.2
Information	1.9	64.0	-5.1	1,272	8.7
Financial activities	8.6	140.0	1.2	1,215	2.9
Professional and business services	14.0	237.7	.0	1,152	4.2
Education and health services	6.3	131.4	2.4	887	2.7
Leisure and hospitality	5.2	127.5	.0	432	4.3
Other services	6.7	40.5	-3.4	587	2.8
Government	.4	156.2	-1.8	800	-.1
Orange, CA	88.8	1,436.6	1.3	874	5.3
Private industry	87.4	1,305.5	2.1	875	5.2
Natural resources and mining	.3	6.1	8.3	579	.2
Construction	6.4	85.5	4.4	969	5.9
Manufacturing	6.1	179.9	-3.0	1,036	11.4
Trade, transportation, and utilities	17.3	278.8	.6	802	2.7
Information	1.5	33.8	-4.4	1,152	5.3
Financial activities	9.7	127.8	9.9	1,354	6.2
Professional and business services	17.4	261.0	1.0	942	2.8
Education and health services	9.1	126.6	6.1	849	3.7
Leisure and hospitality	6.6	159.9	2.5	358	3.8
Other services	12.9	46.0	6.3	518	3.0
Government	1.4	131.1	-5.7	859	6.0
San Diego, CA	85.3	1,278.2	1.3	815	2.6
Private industry	83.9	1,060.2	1.5	809	2.5
Natural resources and mining	.9	11.0	-5.4	491	1.0
Construction	6.4	81.1	4.7	869	.7
Manufacturing	3.6	105.4	-4.2	1,129	11.5
Trade, transportation, and utilities	14.2	220.4	2.2	655	.9
Information	1.4	36.7	-4.5	1,582	-2.0
Financial activities	8.8	81.6	4.8	1,058	.4
Professional and business services	14.9	208.1	1.5	989	2.8
Education and health services	7.6	122.6	1.6	778	5.7
Leisure and hospitality	6.5	141.5	3.5	346	2.4
Other services	19.5	51.6	1.8	449	2.7
Government	1.3	218.0	.1	843	2.9
King, WA	81.6	1,100.6	.2	935	.2
Private industry	81.0	945.5	.1	944	-.3
Natural resources and mining	.4	2.8	-11.3	1,109	.8
Construction	6.2	53.4	-.4	921	1.4
Manufacturing	2.7	101.9	-8.2	1,176	-2.1
Trade, transportation, and utilities	14.8	225.5	1.1	804	2.6
Information	1.5	69.2	.8	1,829	-15.7
Financial activities	6.1	77.5	2.4	1,114	3.5
Professional and business services	11.7	158.3	.7	1,160	8.4
Education and health services	5.9	108.3	1.5	746	4.8
Leisure and hospitality	5.4	100.5	2.9	390	3.7
Other services	26.4	48.1	1.2	463	.4
Government	.6	155.1	1.0	882	3.6
Miami-Dade, FL	80.2	980.8	-.5	765	3.5
Private industry	79.9	827.5	-.7	742	3.6
Natural resources and mining	.5	9.9	-1.8	421	4.0
Construction	4.9	40.7	.3	788	2.7
Manufacturing	2.8	49.4	-9.8	695	5.8
Trade, transportation, and utilities	23.2	247.2	-1.7	689	4.2
Information	1.7	28.5	-3.2	990	1.7
Financial activities	8.2	65.5	.7	1,062	-1.1
Professional and business services	15.9	132.0	-.2	948	5.2
Education and health services	7.8	123.4	1.4	748	2.3
Leisure and hospitality	5.3	92.8	2.1	432	9.9
Other services	7.5	34.5	-1.8	450	3.0
Government	.3	153.3	.5	886	2.8

[1] Average weekly wages were calculated using unrounded data.

[2] Percent changes were computed from quarterly employment and pay data adjusted for noneconomic county reclassifications. See Notes on Current Labor Statistics.

[3] Totals for the United States do not include data for Puerto Rico or the Virgin Islands.

[4] Data do not meet BLS or State agency disclosure standards.

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. Data are preliminary.

23. Quarterly Census of Employment and Wages: by State, fourth quarter 2003.

State	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage[1]	
		December 2003 (thousands)	Percent change, December 2002-03	Fourth quarter 2003	Percent change, fourth quarter 2002-03
United States[2]	8,314.1	129,341.5	0.0	$767	3.6
Alabama	111.8	1,838.1	-.1	657	4.0
Alaska	20.0	282.7	1.1	746	1.1
Arizona	126.9	2,352.1	2.2	710	3.8
Arkansas	75.2	1,133.6	.5	587	4.1
California	1,190.8	14,922.3	.0	869	3.8
Colorado	160.0	2,134.6	-1.1	784	2.0
Connecticut	109.1	1,648.9	-.7	992	3.8
Delaware	27.1	408.4	.5	825	5.0
District of Columbia	30.0	654.8	-.4	1,238	3.9
Florida	504.1	7,424.5	.8	685	3.8
Georgia	245.6	3,845.6	.2	734	2.8
Hawaii	37.4	583.0	1.3	678	3.7
Idaho	48.5	577.5	.6	579	1.8
Illinois	325.7	5,738.7	-1.2	827	3.2
Indiana	152.1	2,852.2	-.3	675	3.5
Iowa	90.6	1,418.5	.0	626	4.7
Kansas	82.2	1,298.3	-.9	631	2.8
Kentucky	105.7	1,740.6	.3	645	3.5
Louisiana	114.0	1,870.9	.5	628	2.4
Maine	47.4	595.8	.7	631	4.6
Maryland	150.4	2,466.4	.7	831	3.6
Massachusetts	206.6	3,154.6	-1.9	954	5.2
Michigan	251.3	4,365.8	-1.1	806	3.9
Minnesota	159.0	2,591.9	-.5	777	3.2
Mississippi	65.6	1,108.1	.4	559	3.7
Missouri	165.4	2,633.6	-.7	676	2.4
Montana	42.0	396.6	1.1	549	4.0
Nebraska	55.3	884.4	.6	613	3.2
Nevada	60.3	1,111.2	4.4	721	5.1
New Hampshire	47.0	614.9	.6	788	4.0
New Jersey	268.1	3,912.8	.1	945	3.4
New Mexico	50.4	757.1	1.4	612	4.1
New York	550.3	8,379.2	-.4	959	5.2
North Carolina	227.8	3,759.6	-.1	679	4.5
North Dakota	24.0	317.6	.9	563	4.3
Ohio	294.2	5,322.4	-.7	713	3.8
Oklahoma	91.6	1,423.4	-1.3	597	4.2
Oregon	118.8	1,579.8	.2	694	3.3
Pennsylvania	326.9	5,524.5	-.2	750	4.7
Rhode Island	34.7	480.5	1.2	738	5.1
South Carolina	108.4	1,781.0	.3	623	3.1
South Dakota	28.1	365.4	.3	559	4.1
Tennessee	128.4	2,648.0	.4	689	4.2
Texas	505.3	9,300.1	-.3	754	3.1
Utah	73.9	1,066.2	1.2	630	2.3
Vermont	24.1	300.7	.3	661	5.1
Virginia	202.6	3,477.5	1.2	786	5.2
Washington	222.7	2,654.7	1.0	759	1.3
West Virginia	47.2	685.2	.1	587	2.1
Wisconsin	157.6	2,715.4	.0	683	4.1
Wyoming	22.0	241.6	1.7	616	4.1
Puerto Rico	50.2	1,074.1	3.5	450	4.7
Virgin Islands	3.2	42.5	-.2	629	2.4

[1] Average weekly wages were calculated using unrounded data.

[2] Totals for the United States do not include data for Puerto Rico or the Virgin Islands.

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. Data are preliminary.

24. Annual data: Quarterly Census of Employment and Wages, by ownership

Year	Average establishments	Average annual employment	Total annual wages (in thousands)	Average annual wage per employee	Average weekly wage
	Total covered (UI and UCFE)				
1993	6,679,934	109,422,571	$2,884,472,282	$26,361	$507
1994	6,826,677	112,611,287	3,033,676,678	26,939	518
1995	7,040,677	115,487,841	3,215,921,236	27,846	536
1996	7,189,168	117,963,132	3,414,514,808	28,946	557
1997	7,369,473	121,044,432	3,674,031,718	30,353	584
1998	7,634,018	124,183,549	3,967,072,423	31,945	614
1999	7,820,860	127,042,282	4,235,579,204	33,340	641
2000	7,879,116	129,877,063	4,587,708,584	35,323	679
2001	7,984,529	129,635,800	4,695,225,123	36,219	697
2002	8,101,872	128,233,919	4,714,374,741	36,764	707
	UI covered				
1993	6,632,221	106,351,431	$2,771,023,411	$26,055	$501
1994	6,778,300	109,588,189	2,918,684,128	26,633	512
1995	6,990,594	112,539,795	3,102,353,355	27,567	530
1996	7,137,644	115,081,246	3,298,045,286	28,658	551
1997	7,317,363	118,233,942	3,553,933,885	30,058	578
1998	7,586,767	121,400,660	3,845,494,089	31,676	609
1999	7,771,198	124,255,714	4,112,169,533	33,094	636
2000	7,828,861	127,005,574	4,454,966,824	35,077	675
2001	7,933,536	126,883,182	4,560,511,280	35,943	691
2002	8,051,117	125,475,293	4,570,787,218	36,428	701
	Private industry covered				
1993	6,454,381	91,202,971	$2,365,301,493	$25,934	$499
1994	6,596,158	94,146,344	2,494,458,555	26,496	510
1995	6,803,454	96,894,844	2,658,927,216	27,441	528
1996	6,946,858	99,268,446	2,837,334,217	28,582	550
1997	7,121,182	102,175,161	3,071,807,287	30,064	578
1998	7,381,518	105,082,368	3,337,621,699	31,762	611
1999	7,560,567	107,619,457	3,577,738,557	33,244	639
2000	7,622,274	110,015,333	3,887,626,769	35,337	680
2001	7,724,965	109,304,802	3,952,152,155	36,157	695
2002	7,839,903	107,577,281	3,930,767,025	36,539	703
	State government covered				
1993	59,185	4,088,075	$117,095,062	$28,643	$551
1994	60,686	4,162,944	122,879,977	29,518	568
1995	60,763	4,201,836	128,143,491	30,497	586
1996	62,146	4,191,726	131,605,800	31,397	604
1997	65,352	4,214,451	137,057,432	32,521	625
1998	67,347	4,240,779	142,512,445	33,605	646
1999	70,538	4,296,673	149,011,194	34,681	667
2000	65,096	4,370,160	158,618,365	36,296	698
2001	64,583	4,452,237	168,358,331	37,814	727
2002	64,447	4,485,071	175,866,492	39,212	754
	Local government covered				
1993	118,626	11,059,500	$288,594,697	$26,095	$502
1994	121,425	11,278,080	301,315,857	26,717	514
1995	126,342	11,442,238	315,252,346	27,552	530
1996	128,640	11,621,074	329,105,269	28,320	545
1997	130,829	11,844,330	345,069,166	29,134	560
1998	137,902	12,077,513	365,359,945	30,251	582
1999	140,093	12,339,584	385,419,781	31,234	601
2000	141,491	12,620,081	408,721,690	32,387	623
2001	143,989	13,126,143	440,000,795	33,521	645
2002	146,767	13,412,941	464,153,701	34,605	665
	Federal Government covered (UCFE)				
1993	47,714	3,071,140	$113,448,871	$36,940	$710
1994	48,377	3,023,098	114,992,550	38,038	731
1995	50,083	2,948,046	113,567,881	38,523	741
1996	51,524	2,881,887	116,469,523	40,414	777
1997	52,110	2,810,489	120,097,833	42,732	822
1998	47,252	2,782,888	121,578,334	43,688	840
1999	49,661	2,786,567	123,409,672	44,287	852
2000	50,256	2,871,489	132,741,760	46,228	889
2001	50,993	2,752,619	134,713,843	48,940	941
2002	50,755	2,758,627	143,587,523	52,050	1,001

NOTE: Detail may not add to totals due to rounding. Data reflect the movement of Indian Tribal Council establishments from private industry to the public sector. See Notes on Current Labor Statistics.

25. Annual data: Quarterly Census of Employment and Wages, establishment size and employment, private ownership, by supersector, first quarter 2003

Industry, establishments, and employment	Total	Size of establishments								
		Fewer than 5 workers[1]	5 to 9 workers	10 to 19 workers	20 to 49 workers	50 to 99 workers	100 to 249 workers	250 to 499 workers	500 to 999 workers	1,000 or more workers
Total all industries[2]										
Establishments, first quarter	7,933,974	4,768,812	1,331,834	872,241	597,662	203,030	115,598	28,856	10,454	5,487
Employment, March	105,583,548	7,095,128	8,810,097	11,763,253	18,025,655	13,970,194	17,299,058	9,864,934	7,090,739	11,664,490
Natural resources and mining										
Establishments, first quarter	124,527	72,088	23,248	14,773	9,226	2,893	1,593	501	161	44
Employment, March	1,526,176	110,155	153,629	198,895	275,811	198,122	241,559	171,063	108,563	68,379
Construction										
Establishments, first quarter	795,029	523,747	129,201	76,215	46,096	12,837	5,604	1,006	262	61
Employment, March	6,285,841	746,296	846,521	1,021,722	1,371,071	872,274	823,846	338,107	172,944	93,060
Manufacturing										
Establishments, first quarter	381,159	148,469	65,027	57,354	54,261	25,927	19,813	6,506	2,565	1,237
Employment, March	14,606,928	252,443	436,028	788,581	1,685,563	1,815,385	3,043,444	2,245,183	1,732,368	2,607,933
Trade, transportation, and utilities										
Establishments, first quarter	1,851,662	992,180	378,157	239,637	149,960	51,507	31,351	6,681	1,619	570
Employment, March	24,683,356	1,646,304	2,514,548	3,204,840	4,527,709	3,564,316	4,661,898	2,277,121	1,070,141	1,216,479
Information										
Establishments, first quarter	147,062	84,906	20,744	16,130	13,539	5,920	3,773	1,223	575	252
Employment, March	3,208,667	112,409	138,076	220,618	416,670	410,513	576,674	418,113	399,366	516,228
Financial activities										
Establishments, first quarter	753,064	480,485	135,759	76,733	39,003	11,743	6,195	1,794	883	469
Employment, March	7,753,717	788,607	892,451	1,017,662	1,162,498	801,140	934,618	620,183	601,549	935,009
Professional and business services										
Establishments, first quarter	1,307,697	887,875	180,458	111,532	73,599	28,471	17,856	5,153	1,919	834
Employment, March	15,648,435	1,230,208	1,184,745	1,501,470	2,232,506	1,969,466	2,707,203	1,762,251	1,307,870	1,752,716
Education and health services										
Establishments, first quarter	720,207	338,139	164,622	103,683	65,173	24,086	17,122	3,929	1,761	1,692
Employment, March	15,680,834	629,968	1,092,329	1,392,099	1,955,861	1,679,708	2,558,300	1,337,188	1,220,921	3,814,460
Leisure and hospitality										
Establishments, first quarter	657,359	260,149	110,499	118,140	122,168	34,166	9,718	1,609	599	311
Employment, March	11,731,379	411,192	744,144	1,653,470	3,683,448	2,285,550	1,372,780	545,304	404,831	630,660
Other services										
Establishments, first quarter	1,057,236	851,231	116,940	56,238	24,235	5,451	2,561	454	109	17
Employment, March	4,243,633	1,037,360	761,518	740,752	703,957	371,774	376,832	150,421	71,453	29,566

[1] Includes establishments that reported no workers in March 2003.

[2] Includes data for unclassified establishments, not shown separately.

NOTE: Details may not add to totals due to rounding. Data are only produced for first quarter. Data are preliminary.

26. Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Metropolitan areas[3]	$37,908	$38,423	1.4
Abilene, TX	25,141	25,517	1.5
Akron, OH	32,930	34,037	3.4
Albany, GA	28,877	29,913	3.6
Albany-Schenectady-Troy, NY	35,355	35,994	1.8
Albuquerque, NM	31,667	32,475	2.6
Alexandria, LA	26,296	27,300	3.8
Allentown-Bethlehem-Easton, PA	33,569	34,789	3.6
Altoona, PA	26,869	27,360	1.8
Amarillo, TX	27,422	28,274	3.1
Anchorage, AK	37,998	39,112	2.9
Ann Arbor, MI	37,582	39,220	4.4
Anniston, AL	26,486	27,547	4.0
Appleton-Oshkosh-Neenah, WI	32,652	33,020	1.1
Asheville, NC	28,511	28,771	.9
Athens, GA	28,966	29,942	3.4
Atlanta, GA	40,559	41,123	1.4
Atlantic-Cape May, NJ	31,268	32,201	3.0
Auburn-Opelika, AL	25,753	26,405	2.5
Augusta-Aiken, GA-SC	30,626	31,743	3.6
Austin-San Marcos, TX	40,831	39,540	-3.2
Bakersfield, CA	30,106	31,192	3.6
Baltimore, MD	37,495	38,718	3.3
Bangor, ME	27,850	28,446	2.1
Barnstable-Yarmouth, MA	31,025	32,028	3.2
Baton Rouge, LA	30,321	31,366	3.4
Beaumont-Port Arthur, TX	31,798	32,577	2.4
Bellingham, WA	27,724	28,284	2.0
Benton Harbor, MI	31,140	32,627	4.8
Bergen-Passaic, NJ	44,701	45,185	1.1
Billings, MT	27,889	28,553	2.4
Biloxi-Gulfport-Pascagoula, MS	28,351	28,515	.6
Binghamton, NY	31,187	31,832	2.1
Birmingham, AL	34,519	35,940	4.1
Bismarck, ND	27,116	27,993	3.2
Bloomington, IN	28,013	28,855	3.0
Bloomington-Normal, IL	35,111	36,133	2.9
Boise City, ID	31,624	31,955	1.0
Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH	45,766	45,685	-.2
Boulder-Longmont, CO	44,310	44,037	-.6
Brazoria, TX	35,655	36,253	1.7
Bremerton, WA	31,525	33,775	7.1
Brownsville-Harlingen-San Benito, TX	22,142	22,892	3.4
Bryan-College Station, TX	25,755	26,051	1.1
Buffalo-Niagara Falls, NY	32,054	32,777	2.3
Burlington, VT	34,363	35,169	2.3
Canton-Massillon, OH	29,020	29,689	2.3
Casper, WY	28,264	28,886	2.2
Cedar Rapids, IA	34,649	34,730	.2
Champaign-Urbana, IL	30,488	31,995	4.9
Charleston-North Charleston, SC	28,887	29,993	3.8
Charleston, WV	31,530	32,136	1.9
Charlotte-Gastonia-Rock Hill, NC-SC	37,267	38,413	3.1
Charlottesville, VA	32,427	33,328	2.8
Chattanooga, TN-GA	29,981	30,631	2.2
Cheyenne, WY	27,579	28,827	4.5
Chicago, IL	42,685	43,239	1.3
Chico-Paradise, CA	26,499	27,190	2.6
Cincinnati, OH-KY-IN	36,050	37,168	3.1
Clarksville-Hopkinsville, TN-KY	25,567	26,940	5.4
Cleveland-Lorain-Elyria, OH	35,514	36,102	1.7
Colorado Springs, CO	34,391	34,681	.8
Columbia, MO	28,490	29,135	2.3
Columbia, SC	29,904	30,721	2.7
Columbus, GA-AL	28,412	29,207	2.8
Columbus, OH	35,028	36,144	3.2
Corpus Christi, TX	29,361	30,168	2.7
Corvallis, OR	35,525	36,766	3.5
Cumberland, MD-WV	25,504	26,704	4.7
Dallas, TX	42,706	43,000	.7
Danville VA	25,465	26,116	2.6

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Davenport-Moline-Rock Island, IA-IL	$31,275	$32,118	2.7
Dayton-Springfield, OH	33,619	34,327	2.1
Daytona Beach, FL	25,953	26,898	3.6
Decatur, AL	30,891	30,370	-1.7
Decatur, IL	33,354	33,215	-.4
Denver, CO	42,351	42,133	-.5
Des Moines, IA	34,303	35,641	3.9
Detroit, MI	42,704	43,224	1.2
Dothan, AL	28,026	29,270	4.4
Dover, DE	27,754	29,818	7.4
Dubuque, IA	28,402	29,208	2.8
Duluth-Superior, MN-WI	29,415	30,581	4.0
Dutchess County, NY	38,748	38,221	-1.4
Eau Claire, WI	27,680	28,760	3.9
El Paso, TX	25,847	26,604	2.9
Elkhart-Goshen, IN	30,797	32,427	5.3
Elmira, NY	28,669	29,151	1.7
Enid, OK	24,836	25,507	2.7
Erie, PA	29,293	29,780	1.7
Eugene-Springfield, OR	28,983	29,427	1.5
Evansville-Henderson, IN-KY	31,042	31,977	3.0
Fargo-Moorhead, ND-MN	27,899	29,053	4.1
Fayetteville, NC	26,981	28,298	4.9
Fayetteville-Springdale-Rogers, AR	29,940	31,090	3.8
Flagstaff, AZ-UT	25,890	26,846	3.7
Flint, MI	35,995	36,507	1.4
Florence, AL	25,639	26,591	3.7
Florence, SC	28,800	29,563	2.6
Fort Collins-Loveland, CO	33,248	34,215	2.9
Fort Lauderdale, FL	33,966	34,475	1.5
Fort Myers-Cape Coral, FL	29,432	30,324	3.0
Fort Pierce-Port St. Lucie, FL	27,742	29,152	5.1
Fort Smith, AR-OK	26,755	27,075	1.2
Fort Walton Beach, FL	26,151	27,242	4.2
Fort Wayne, IN	31,400	32,053	2.1
Fort Worth-Arlington, TX	36,379	37,195	2.2
Fresno, CA	27,647	28,814	4.2
Gadsden, AL	25,760	26,214	1.8
Gainesville, FL	26,917	27,648	2.7
Galveston-Texas City, TX	31,067	31,920	2.7
Gary, IN	31,948	32,432	1.5
Glens Falls, NY	27,885	28,931	3.8
Goldsboro, NC	25,398	25,821	1.7
Grand Forks, ND-MN	24,959	25,710	3.0
Grand Junction, CO	27,426	28,331	3.3
Grand Rapids-Muskegon-Holland, MI	33,431	34,214	2.3
Great Falls, MT	24,211	25,035	3.4
Greeley, CO	30,066	31,104	3.5
Green Bay, WI	32,631	33,698	3.3
Greensboro--Winston-Salem--High Point, NC	31,730	32,369	2.0
Greenville, NC	28,289	29,055	2.7
Greenville-Spartanburg-Anderson, SC	30,940	31,726	2.5
Hagerstown, MD	29,020	30,034	3.5
Hamilton-Middletown, OH	32,325	32,985	2.0
Harrisburg-Lebanon-Carlisle, PA	33,408	34,497	3.3
Hartford, CT	43,880	44,387	1.2
Hattiesburg, MS	25,145	26,051	3.6
Hickory-Morganton-Lenoir, NC	27,305	27,996	2.5
Honolulu, HI	32,531	33,978	4.4
Houma, LA	30,343	30,758	1.4
Houston, TX	42,784	42,712	-.2
Huntington-Ashland, WV-KY-OH	27,478	28,321	3.1
Huntsville, AL	36,727	38,571	5.0
Indianapolis, IN	35,989	36,608	1.7
Iowa City, IA	31,663	32,567	2.9
Jackson, MI	32,454	33,251	2.5
Jackson, MS	29,813	30,537	2.4
Jackson, TN	29,414	30,443	3.5
Jacksonville, FL	32,367	33,722	4.2
Jacksonville, NC	21,395	22,269	4.1

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Jamestown, NY	$25,913	$26,430	2.0
Janesville-Beloit, WI	31,482	32,837	4.3
Jersey City, NJ	47,638	49,562	4.0
Johnson City-Kingsport-Bristol, TN-VA	28,543	29,076	1.9
Johnstown, PA	25,569	26,161	2.3
Jonesboro, AR	25,337	26,165	3.3
Joplin, MO	26,011	26,594	2.2
Kalamazoo-Battle Creek, MI	32,905	34,237	4.0
Kankakee, IL	29,104	30,015	3.1
Kansas City, MO-KS	35,794	36,731	2.6
Kenosha, WI	31,562	32,473	2.9
Killeen-Temple, TX	26,193	27,299	4.2
Knoxville, TN	30,422	31,338	3.0
Kokomo, IN	39,599	40,778	3.0
La Crosse, WI-MN	27,774	28,719	3.4
Lafayette, LA	29,693	30,104	1.4
Lafayette, IN	31,484	31,700	.7
Lake Charles, LA	29,782	30,346	1.9
Lakeland-Winter Haven, FL	28,890	29,505	2.1
Lancaster, PA	31,493	32,197	2.2
Lansing-East Lansing, MI	34,724	35,785	3.1
Laredo, TX	24,128	24,739	2.5
Las Cruces, NM	24,310	25,256	3.9
Las Vegas, NV-AZ	32,239	33,280	3.2
Lawrence, KS	25,923	26,621	2.7
Lawton, OK	24,812	25,392	2.3
Lewiston-Auburn, ME	27,092	28,435	5.0
Lexington, KY	31,593	32,776	3.7
Lima, OH	29,644	30,379	2.5
Lincoln, NE	29,352	30,614	4.3
Little Rock-North Little Rock, AR	30,858	31,634	2.5
Longview-Marshall, TX	28,029	28,172	.5
Los Angeles-Long Beach, CA	40,891	41,709	2.0
Louisville, KY-IN	33,058	33,901	2.6
Lubbock, TX	26,577	27,625	3.9
Lynchburg, VA	28,859	29,444	2.0
Macon, GA	30,595	31,884	4.2
Madison, WI	34,097	35,410	3.9
Mansfield, OH	28,808	30,104	4.5
McAllen-Edinburg-Mission, TX	22,313	23,179	3.9
Medford-Ashland, OR	27,224	28,098	3.2
Melbourne-Titusville-Palm Bay, FL	32,798	33,913	3.4
Memphis, TN-AR-MS	34,603	35,922	3.8
Merced, CA	25,479	26,771	5.1
Miami, FL	34,524	35,694	3.4
Middlesex-Somerset-Hunterdon, NJ	49,950	50,457	1.0
Milwaukee-Waukesha, WI	35,617	36,523	2.5
Minneapolis-St. Paul, MN-WI	40,868	41,722	2.1
Missoula, MT	26,181	27,249	4.1
Mobile, AL	28,129	28,742	2.2
Modesto, CA	29,591	30,769	4.0
Monmouth-Ocean, NJ	37,056	37,710	1.8
Monroe, LA	26,578	27,614	3.9
Montgomery, AL	29,150	30,525	4.7
Muncie, IN	28,374	29,017	2.3
Myrtle Beach, SC	24,029	24,672	2.7
Naples, FL	30,839	31,507	2.2
Nashville, TN	33,989	35,036	3.1
Nassau-Suffolk, NY	39,662	40,396	1.9
New Haven-Bridgeport-Stamford-Waterbury-Danbury, CT	52,198	51,170	-2.0
New London-Norwich, CT	38,505	38,650	.4
New Orleans, LA	31,089	32,407	4.2
New York, NY	59,097	57,708	-2.4
Newark, NJ	47,715	48,781	2.2
Newburgh, NY-PA	29,827	30,920	3.7
Norfolk-Virginia Beach-Newport News, VA-NC	29,875	30,823	3.2
Oakland, CA	45,920	46,877	2.1
Ocala, FL	26,012	26,628	2.4
Odessa-Midland, TX	31,278	31,295	.1
Oklahoma City, OK	28,915	29,850	3.2

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Olympia, WA	$32,772	$33,765	3.0
Omaha, NE-IA	31,856	33,107	3.9
Orange County, CA	40,252	41,219	2.4
Orlando, FL	31,276	32,461	3.8
Owensboro, KY	27,306	28,196	3.3
Panama City, FL	26,433	27,448	3.8
Parkersburg-Marietta, WV-OH	27,920	29,529	5.8
Pensacola, FL	28,059	28,189	.5
Peoria-Pekin, IL	33,293	34,261	2.9
Philadelphia, PA-NJ	40,231	41,121	2.2
Phoenix-Mesa, AZ	35,514	36,045	1.5
Pine Bluff, AR	27,561	28,698	4.1
Pittsburgh, PA	35,024	35,625	1.7
Pittsfield, MA	31,561	32,707	3.6
Pocatello, ID	24,621	25,219	2.4
Portland, ME	32,327	33,309	3.0
Portland-Vancouver, OR-WA	37,285	37,650	1.0
Providence-Warwick-Pawtucket, RI	33,403	34,610	3.6
Provo-Orem, UT	28,266	28,416	.5
Pueblo, CO	27,097	27,763	2.5
Punta Gorda, FL	25,404	26,119	2.8
Racine, WI	33,319	34,368	3.1
Raleigh-Durham-Chapel Hill, NC	38,691	39,056	.9
Rapid City, SD	25,508	26,434	3.6
Reading, PA	32,807	33,912	3.4
Redding, CA	28,129	28,961	3.0
Reno, NV	34,231	34,744	1.5
Richland-Kennewick-Pasco, WA	33,370	35,174	5.4
Richmond-Petersburg, VA	35,879	36,751	2.4
Riverside-San Bernardino, CA	30,510	31,591	3.5
Roanoke, VA	30,330	31,775	4.8
Rochester, MN	37,753	39,036	3.4
Rochester, NY	34,327	34,827	1.5
Rockford, IL	32,104	32,827	2.3
Rocky Mount, NC	28,770	28,893	.4
Sacramento, CA	38,016	39,354	3.5
Saginaw-Bay City-Midland, MI	35,429	35,444	.0
St. Cloud, MN	28,263	29,535	4.5
St. Joseph, MO	27,734	28,507	2.8
St. Louis, MO-IL	35,928	36,712	2.2
Salem, OR	28,336	29,210	3.1
Salinas, CA	31,735	32,463	2.3
Salt Lake City-Ogden, UT	31,965	32,600	2.0
San Angelo, TX	26,147	26,321	.7
San Antonio, TX	30,650	31,336	2.2
San Diego, CA	38,418	39,305	2.3
San Francisco, CA	59,654	56,602	-5.1
San Jose, CA	65,931	63,056	-4.4
San Luis Obispo-Atascadero-Paso Robles, CA	29,092	29,981	3.1
Santa Barbara-Santa Maria-Lompoc, CA	33,626	34,382	2.2
Santa Cruz-Watsonville, CA	35,022	35,721	2.0
Santa Fe, NM	30,671	32,269	5.2
Santa Rosa, CA	36,145	36,494	1.0
Sarasota-Bradenton, FL	27,958	28,950	3.5
Savannah, GA	30,176	30,796	2.1
Scranton--Wilkes-Barre--Hazleton, PA	28,642	29,336	2.4
Seattle-Bellevue-Everett, WA	45,299	46,093	1.8
Sharon, PA	26,707	27,872	4.4
Sheboygan, WI	30,840	32,148	4.2
Sherman-Denison, TX	30,397	30,085	-1.0
Shreveport-Bossier City, LA	27,856	28,769	3.3
Sioux City, IA-NE	26,755	27,543	2.9
Sioux Falls, SD	28,962	29,975	3.5
South Bend, IN	30,769	31,821	3.4
Spokane, WA	29,310	30,037	2.5
Springfield, IL	36,061	37,336	3.5
Springfield, MO	27,338	27,987	2.4
Springfield, MA	32,801	33,972	3.6
State College, PA	29,939	30,910	3.2
Steubenville-Weirton, OH-WV	28,483	29,129	2.3

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Stockton-Lodi, CA	$30,818	$31,958	3.7
Sumter, SC	24,450	24,982	2.2
Syracuse, NY	32,254	33,752	4.6
Tacoma, WA	31,261	32,507	4.0
Tallahassee, FL	29,708	30,895	4.0
Tampa-St. Petersburg-Clearwater, FL	31,678	32,458	2.5
Terre Haute, IN	27,334	28,415	4.0
Texarkana, TX-Texarkana, AR	26,492	27,717	4.6
Toledo, OH	32,299	33,513	3.8
Topeka, KS	30,513	31,707	3.9
Trenton, NJ	46,831	47,969	2.4
Tucson, AZ	30,690	31,673	3.2
Tulsa, OK	31,904	32,241	1.1
Tuscaloosa, AL	29,972	30,745	2.6
Tyler, TX	30,551	31,050	1.6
Utica-Rome, NY	27,777	28,500	2.6
Vallejo-Fairfield-Napa, CA	33,903	34,543	1.9
Ventura, CA	37,783	38,195	1.1
Victoria, TX	29,068	29,168	.3
Vineland-Millville-Bridgeton, NJ	32,571	33,625	3.2
Visalia-Tulare-Porterville, CA	24,732	25,650	3.7
Waco, TX	28,245	28,885	2.3
Washington, DC-MD-VA-WV	47,589	48,430	1.8
Waterloo-Cedar Falls, IA	29,119	29,916	2.7
Wausau, WI	29,402	30,292	3.0
West Palm Beach-Boca Raton, FL	35,957	36,550	1.6
Wheeling, WV-OH	26,282	26,693	1.6
Wichita, KS	32,983	33,429	1.4
Wichita Falls, TX	25,557	26,387	3.2
Williamsport, PA	27,801	27,988	.7
Wilmington-Newark, DE-MD	42,177	43,401	2.9
Wilmington, NC	25,287	29,157	-.4
Yakima, WA	24,204	24,934	3.0
Yolo, CA	35,352	35,591	.7
York, PA	31,936	32,609	2.1
Youngstown-Warren, OH	28,789	29,799	3.5
Yuba City, CA	27,781	28,967	4.3
Yuma, AZ	22,415	23,429	4.5
Aguadilla, PR	18,061	19,283	6.8
Arecibo, PR	16,600	18,063	8.8
Caguas, PR	18,655	19,706	5.6
Mayaguez, PR	17,101	17,500	2.3
Ponce, PR	17,397	18,187	4.5
San Juan-Bayamon, PR	20,948	21,930	4.7

[1] Includes data for Metropolitan Statistical Areas (MSA) and Primary Metropolitan Statistical Areas (PMSA) as defined by OMB Bulletin No. 99-04. In the New England areas, the New England County Metropolitan Area (NECMA) definitions were used.

[2] Each year's total is based on the MSA definition for the specific year. Annual changes include differences resulting from changes in MSA definitions.

[3] Totals do not include the six MSAs within Puerto Rico.

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs.

27. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1993	1994[1]	1995	1996	1997[1]	1998[1]	1999[1]	2000[1]	2001	2002	2003
Civilian noninstitutional population	194,838	196,814	198,584	200,591	203,133	205,220	207,753	212,577	215,092	217,570	221,168
Civilian labor force	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510
Labor force participation rate	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2
Employed	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736
Employment-population ratio	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3
Unemployed	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774
Unemployment rate	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0
Not in the labor force	65,638	65,758	66,280	66,647	66,836	67,547	68,385	69,994	71,359	72,707	74,658

[1] Not strictly comparable with prior years.

28. Annual data: Employment levels by industry

[In thousands]

Industry	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total private employment	91,855	95,016	97,866	100,169	103,113	106,021	108,686	110,996	110,707	108,828	108,356
Total nonfarm employment	110,844	114,291	117,298	119,708	122,770	125,930	128,993	131,785	131,826	130,341	129,931
Goods-producing	22,219	22,774	23,156	23,410	23,886	24,354	24,465	24,649	23,873	22,557	21,817
Natural resources and mining	666	659	641	637	654	645	598	599	606	583	571
Construction	4,779	5,095	5,274	5,536	5,813	6,149	6,545	6,787	6,826	6,716	6,722
Manufacturing	16,744	17,021	17,241	17,237	17,419	17,560	17,322	17,263	16,441	15,259	14,525
Private service-providing	69,636	72,242	74,710	76,759	79,227	81,667	84,221	86,346	86,834	86,271	86,538
Trade, transportation, and utilities	22,378	23,128	23,834	24,239	24,700	25,186	25,771	26,225	25,983	25,497	25,275
Wholesale trade	5,093.2	5,247.3	5,433.1	5,522.0	5,663.9	5,795.2	5,892.5	5,933.2	5,772.7	5,652.3	5,605.6
Retail trade	13,020.5	13,490.8	13,896.7	14,142.5	14,388.9	14,609.3	14,970.1	15,279.8	15,238.6	15,025.1	14,911.5
Transportation and warehousing	3,553.8	3,701.0	3,837.8	3,935.3	4,026.5	4,168.0	4,300.3	4,410.3	4,372.0	4,223.6	4,176.7
Utilities	710.7	689.3	666.2	639.6	620.9	613.4	608.5	601.3	599.4	596.2	580.8
Information	2,668	2,738	2,843	2,940	3,084	3,218	3,419	3,631	3,629	3,395	3,198
Financial activities	6,709	6,867	6,827	6,969	7,178	7,462	7,648	7,687	7,807	7,847	7,974
Professional and business services	11,495	12,174	12,844	13,462	14,335	15,147	15,957	16,666	16,476	15,976	15,997
Education and health services	12,303	12,807	13,289	13,683	14,087	14,446	14,798	15,109	15,645	16,199	16,577
Leisure and hospitality	9,732	10,100	10,501	10,777	11,018	11,232	11,543	11,862	12,036	11,986	12,125
Other services	4,350	4,428	4,572	4,690	4,825	4,976	5,087	5,168	5,258	5,372	5,393
Government	18,989	19,275	19,432	19,539	19,664	19,909	20,307	20,790	21,118	21,513	21,575

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

29. Annual data: Average hours and earnings of production or nonsupervisory workers on nonfarm payrolls, by industry

Industry	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Private sector:											
Average weekly hours	34.3	34.5	34.3	34.3	34.5	34.5	34.3	34.3	34.0	33.9	33.7
Average hourly earnings (in dollars)	11.03	11.32	11.64	12.03	12.49	13.00	13.47	14.00	14.53	14.95	15.35
Average weekly earnings (in dollars)	378.40	390.73	399.53	412.74	431.25	448.04	462.49	480.41	493.20	506.07	517.36
Goods-producing:											
Average weekly hours	40.6	41.1	40.8	40.8	41.1	40.8	40.8	40.7	39.9	39.9	39.8
Average hourly earnings (in dollars)	12.28	12.63	12.96	13.38	13.82	14.23	14.71	15.27	15.78	16.33	16.80
Average weekly earnings (in dollars)	498.82	519.58	528.62	546.48	568.43	580.99	599.99	621.86	630.04	651.61	669.23
Natural resources and mining											
Average weekly hours	44.9	45.3	45.3	46.0	46.2	44.9	44.2	44.4	44.6	43.2	43.6
Average hourly earnings (in dollars)	14.12	14.41	14.78	15.10	15.57	16.20	16.33	16.55	17.00	17.19	17.58
Average weekly earnings (in dollars)	634.77	653.14	670.32	695.07	720.11	727.28	721.74	734.92	757.92	741.97	766.83
Construction:											
Average weekly hours	38.4	38.8	38.8	38.9	38.9	38.8	39.0	39.2	38.7	38.4	38.4
Average hourly earnings (in dollars)	14.04	14.38	14.73	15.11	15.67	16.23	16.80	17.48	18.00	18.52	18.95
Average weekly earnings (in dollars)	539.81	558.53	571.57	588.48	609.48	629.75	655.11	685.78	695.89	711.82	727.11
Manufacturing:											
Average weekly hours	41.1	41.7	41.3	41.3	41.7	41.4	41.4	41.3	40.3	40.5	40.4
Average hourly earnings (in dollars)	11.70	12.04	12.34	12.75	13.14	13.45	13.85	14.32	14.76	15.29	15.74
Average weekly earnings (in dollars)	480.80	502.12	509.26	526.55	548.22	557.12	573.17	590.65	595.19	618.75	636.07
Private service-providing:											
Average weekly hours	32.5	32.7	32.6	32.6	32.8	32.8	32.7	32.7	32.5	32.5	32.4
Average hourly earnings (in dollars)	10.60	10.87	11.19	11.57	12.05	12.59	13.07	13.60	14.16	14.56	14.96
Average weekly earnings (in dollars)	345.03	354.97	364.14	376.72	394.77	412.78	427.30	445.00	460.32	472.88	484.00
Trade, transportation, and utilities:											
Average weekly hours	34.1	34.3	34.1	34.1	34.3	34.2	33.9	33.8	33.5	33.6	33.6
Average hourly earnings (in dollars)	10.55	10.80	11.10	11.46	11.90	12.39	12.82	13.31	13.70	14.02	14.34
Average weekly earnings (in dollars)	359.33	370.38	378.79	390.64	407.57	423.30	434.31	449.88	459.53	471.27	481.10
Wholesale trade:											
Average weekly hours	38.5	38.8	38.6	38.6	38.8	38.6	38.6	38.8	38.4	38.0	37.8
Average hourly earnings (in dollars)	12.57	12.93	13.34	13.80	14.41	15.07	15.62	16.28	16.77	16.98	17.36
Average weekly earnings (in dollars)	484.46	501.17	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.12
Retail trade:											
Average weekly hours	30.7	30.9	30.8	30.7	30.9	30.9	30.8	30.7	30.7	30.9	30.9
Average hourly earnings (in dollars)	8.36	8.61	8.85	9.21	9.59	10.05	10.45	10.86	11.29	11.67	11.90
Average weekly earnings (in dollars)	484.46	501.17	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.12
Transportation and warehousing:											
Average weekly hours	38.9	39.5	38.9	39.1	39.4	38.7	37.6	37.4	36.7	36.8	36.8
Average hourly earnings (in dollars)	12.71	12.84	13.18	13.45	13.78	14.12	14.55	15.05	15.33	15.76	16.25
Average weekly earnings (in dollars)	494.36	507.27	513.37	525.60	542.55	546.86	547.97	562.31	562.70	579.75	597.79
Utilities:											
Average weekly hours	42.1	42.3	42.3	42.0	42.0	42.0	42.0	42.0	41.4	40.9	41.1
Average hourly earnings (in dollars)	17.95	18.66	19.19	19.78	20.59	21.48	22.03	22.75	23.58	23.96	24.76
Average weekly earnings (in dollars)	756.35	789.98	811.52	830.74	865.26	902.94	924.59	955.66	977.18	979.09	1,016.94
Information:											
Average weekly hours	36.0	36.0	36.0	36.4	36.3	36.6	36.7	36.8	36.9	36.5	36.2
Average hourly earnings (in dollars)	14.86	15.32	15.68	16.30	17.14	17.67	18.40	19.07	19.80	20.20	21.01
Average weekly earnings (in dollars)	535.25	551.28	564.98	592.68	622.40	646.52	675.32	700.89	731.11	738.17	761.13
Financial activities:											
Average weekly hours	35.5	35.5	35.5	35.5	35.7	36.0	35.8	35.9	35.8	35.6	35.5
Average hourly earnings (in dollars)	11.36	11.82	12.28	12.71	13.22	13.93	14.47	14.98	15.59	16.17	17.13
Average weekly earnings (in dollars)	403.02	419.20	436.12	451.49	472.37	500.95	517.57	537.37	558.02	575.51	608.87
Professional and business services:											
Average weekly hours	34.0	34.1	34.0	34.1	34.3	34.3	34.4	34.5	34.2	34.2	34.1
Average hourly earnings (in dollars)	11.96	12.15	12.53	13.00	13.57	14.27	14.85	15.52	16.33	16.81	17.20
Average weekly earnings (in dollars)	406.20	414.16	426.44	442.81	465.51	490.00	510.99	535.07	557.84	574.66	586.68
Education and health services:											
Average weekly hours	32.0	32.0	32.0	31.9	32.2	32.2	32.1	32.2	32.3	32.4	32.3
Average hourly earnings (in dollars)	11.21	11.50	11.80	12.17	12.56	13.00	13.44	13.95	14.64	15.21	15.64
Average weekly earnings (in dollars)	359.08	368.14	377.73	388.27	404.65	418.82	431.35	449.29	473.39	492.74	505.76
Leisure and hospitality:											
Average weekly hours	25.9	26.0	25.9	25.9	26.0	26.2	26.1	26.1	25.8	25.8	25.6
Average hourly earnings (in dollars)	6.32	6.46	6.62	6.82	7.13	7.48	7.76	8.11	8.35	8.58	8.76
Average weekly earnings (in dollars)	163.45	168.00	171.43	176.48	185.81	195.82	202.87	211.79	215.19	221.26	224.25
Other services:											
Average weekly hours	32.6	32.7	32.6	32.5	32.7	32.6	32.5	32.5	32.3	32.0	31.4
Average hourly earnings (in dollars)	9.90	10.18	10.51	10.85	11.29	11.79	12.26	12.73	13.27	13.72	13.84
Average weekly earnings (in dollars)	322.69	332.44	342.36	352.62	368.63	384.25	398.77	413.41	428.64	439.76	434.49

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data.

30. Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	2002		2003				2004			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2004	
Civilian workers[2]	161.3	162.2	164.5	165.8	167.6	168.4	170.7	172.2	173.9	1.0	3.8
Workers, by occupational group:											
White-collar workers	163.5	164.3	166.7	167.9	169.9	170.7	172.7	174.0	175.8	1.0	3.5
Professional specialty and technical	161.4	162.4	164.1	165.0	167.0	168.0	170.2	171.2	173.6	1.4	4.0
Executive, administrative, and managerial	166.3	166.7	171.1	172.0	174.0	174.9	175.8	177.1	178.2	.6	2.4
Administrative support, including clerical	164.9	166.1	168.3	170.0	171.7	172.5	175.3	177.2	178.7	.8	4.1
Blue-collar workers	156.4	157.5	159.8	161.4	162.9	163.7	166.9	168.8	170.1	.8	4.4
Service occupations	161.3	162.2	164.1	165.0	166.8	167.9	169.7	170.9	172.7	1.1	3.5
Workers, by industry division:											
Goods-producing	158.7	169.2	163.1	164.6	165.8	166.8	170.4	171.9	173.4	.9	4.6
Manufacturing	159.1	160.5	164.0	165.4	166.5	167.1	171.7	173.2	174.9	1.0	5.0
Service-producing	162.2	162.8	165.0	166.2	168.2	169.1	170.8	172.3	174.0	1.0	3.4
Services	163.2	163.9	165.3	166.3	168.5	169.5	171.2	172.3	174.5	1.3	3.6
Health services	163.1	164.5	166.4	167.6	169.3	170.7	173.0	174.4	176.7	1.3	4.4
Hospitals	165.7	167.6	169.9	170.8	173.1	174.8	176.8	178.2	180.5	1.3	4.3
Educational services	161.6	162.8	163.6	164.2	166.9	167.6	168.5	168.9	171.8	1.7	2.9
Public administration[3]	160.2	161.7	163.4	164.3	167.3	168.1	170.1	171.4	174.1	1.6	4.1
Nonmanufacturing	161.7	162.4	164.5	165.8	167.8	168.6	170.4	171.8	173.5	1.0	3.4
Private industry workers	161.6	162.3	165.0	166.4	168.1	168.8	171.4	173.0	174.4	.8	3.7
Excluding sales occupations	161.6	162.4	165.1	166.6	168.1	169.0	171.6	173.2	174.6	.9	3.9
Workers, by occupational group:											
White-collar workers	164.6	165.2	168.1	169.4	171.2	172.0	174.2	175.7	177.3	.8	3.6
Excluding sales occupations	165.3	165.9	169.1	170.4	172.1	173.0	175.3	176.7	178.3	.9	3.6
Professional specialty and technical occupations	163.6	164.4	166.5	167.7	169.4	170.5	173.4	174.7	176.8	.9	4.4
Executive, administrative, and managerial occupations	167.0	167.2	172.1	173.1	175.0	175.9	176.8	178.1	179.2	1.2	2.4
Sales occupations	161.6	161.9	163.5	165.1	167.2	167.1	169.2	171.2	173.1	.6	3.5
Administrative support occupations, including clerical	165.6	166.7	169.0	170.9	172.3	173.2	176.1	178.1	179.4	1.1	4.1
Blue-collar workers	156.3	157.3	159.7	161.4	162.8	163.6	166.9	168.8	170.1	.7	4.5
Precision production, craft, and repair occupations	156.9	157.8	160.0	162.0	163.1	164.2	167.1	169.1	170.2	.8	4.4
Machine operators, assemblers, and inspectors	155.4	156.7	159.9	161.1	162.6	163.2	168.7	170.5	172.2	.7	5.9
Transportation and material moving occupations	151.0	151.8	153.2	155.1	156.7	156.9	158.5	160.6	161.8	1.0	3.3
Handlers, equipment cleaners, helpers, and laborers	161.4	162.9	164.9	166.8	168.6	169.5	171.7	173.2	174.3	.7	3.4
Service occupations	159.0	159.8	161.7	162.6	163.8	164.3	166.9	168.2	168.9	.6	3.1
Production and nonsupervisory occupations[4]	159.7	160.5	162.6	164.1	165.7	166.6	169.3	171.0	172.4	.4	4.0
Workers, by industry division:											
Goods-producing	158.6	160.1	163.0	164.5	165.7	166.5	170.3	171.8	173.3	.8	4.6
Excluding sales occupations	157.9	159.2	162.4	163.8	165.0	165.9	169.8	171.2	172.5	.9	4.5
White-collar occupations	162.9	164.3	167.8	169.2	170.1	170.5	173.5	174.7	176.4	.8	3.3
Excluding sales occupations	161.1	162.3	166.3	167.5	168.5	169.2	172.2	173.3	174.5	1.0	3.6
Blue-collar occupations	155.9	157.3	159.9	161.5	162.9	163.9	168.1	169.8	171.3	.7	5.2
Construction	156.3	157.9	159.1	161.1	162.3	163.3	164.6	165.9	167.0	.9	2.9
Manufacturing	159.1	160.5	164.0	165.4	166.5	167.1	171.7	173.2	174.9	.7	5.0
White-collar occupations	162.2	163.3	167.1	168.7	169.5	169.6	173.2	174.6	176.4	1.0	4.1
Excluding sales occupations	159.6	160.7	165.1	166.4	167.4	167.8	171.3	172.6	174.1	.9	4.0
Blue-collar occupations	156.7	158.3	161.6	162.8	164.1	165.1	170.4	172.0	173.7	1.0	5.9
Durables	158.9	160.6	164.4	165.5	166.6	167.3	172.4	174.0	175.8	1.0	5.5
Nondurables	159.2	160.3	163.1	164.9	166.0	166.6	170.4	171.7	173.1	.8	4.3
Service-producing	162.7	163.1	165.6	167.0	168.8	169.7	171.6	173.3	174.7	.8	3.5
Excluding sales occupations	163.5	164.0	166.6	168.0	169.7	170.6	172.5	174.2	175.6	.8	3.5
White-collar occupations	164.7	165.1	167.9	169.2	171.2	172.0	174.1	175.7	177.3	.9	3.6
Excluding sales occupations	166.5	167.0	169.9	171.3	173.1	174.2	176.2	177.8	179.4	.9	3.6
Blue-collar occupations	156.6	156.9	158.7	160.8	162.2	162.6	164.1	166.4	167.4	.6	3.2
Service occupations	158.5	159.3	161.1	162.0	163.2	164.3	166.1	167.4	168.1	.4	3.0
Transportation and public utilities	160.8	161.7	163.2	165.4	166.5	167.0	169.8	172.5	173.6	.6	4.3
Transportation	155.4	156.1	157.8	158.9	159.4	159.6	162.0	164.7	166.2	.9	4.3
Public utilities	168.2	169.2	170.5	174.2	176.4	177.0	180.4	183.1	183.6	.3	4.1
Communications	169.0	170.1	171.3	175.5	178.4	179.0	182.2	183.6	183.6	.1	3.0
Electric, gas, and sanitary services	167.2	168.1	169.5	172.6	173.8	174.6	178.2	182.4	183.3	.5	5.5
Wholesale and retail trade	159.6	159.7	161.3	162.5	164.3	165.0	166.3	168.1	169.1	.6	2.9
Excluding sales occupations	160.3	160.4	161.8	162.7	165.0	165.9	167.4	168.6	169.6	.6	2.8
Wholesale trade	165.9	166.7	169.5	171.3	172.0	172.0	173.8	175.9	177.8	1.1	3.4
Excluding sales occupations	166.1	167.2	168.4	169.9	171.2	171.3	173.7	174.0	175.3	.7	2.4
Retail trade	156.0	155.8	156.6	157.4	159.9	161.0	162.1	163.7	164.2	.3	2.7
General merchandise stores	156.1	155.1	156.4	159.2	161.2	165.6	165.8	166.2	168.8	1.6	4.7
Food stores	156.3	156.3	157.5	158.6	159.3	160.3	162.1	163.5	163.5	.0	2.6

See footnotes at end of table.

30. Continued—Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	2002		2003				2004			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2004	
Finance, insurance, and real estate	168.0	168.5	176.7	178.3	180.2	180.9	182.5	183.6	184.8	0.7	2.6
Excluding sales occupations	172.1	173.1	182.0	184.0	1,853.0	186.1	186.6	188.7	190.9	.7	2.5
Banking, savings and loan, and other credit agencies	184.6	185.3	204.3	206.3	207.6	209.0	207.2	208.9	210.5	.8	1.4
Insurance	167.1	167.9	172.1	173.9	175.1	176.2	177.8	180.5	182.1	.9	4.0
Services	164.9	165.4	167.1	168.4	170.4	171.4	173.5	175.1	176.9	1.0	3.8
Business services	167.2	167.5	168.5	169.2	171.9	172.6	174.8	176.9	178.5	.9	3.8
Health services	163.2	164.4	166.5	167.9	169.4	170.8	173.3	174.8	177.0	1.3	4.5
Hospitals	166.2	168.1	170.8	171.9	173.9	175.9	178.1	179.7	181.8	1.2	4.5
Educational services	173.5	175.2	176.3	177.1	180.2	181.3	183.1	184.2	187.0	1.5	3.8
Colleges and universities	172.0	173.7	174.5	175.4	178.4	179.4	181.2	182.5	185.2	1.5	3.8
Nonmanufacturing	162.0	162.5	164.9	166.4	168.1	169.0	170.9	172.5	173.9	.8	3.5
White-collar workers	164.8	165.3	168.0	169.3	171.2	172.1	174.1	175.7	177.2	.9	3.5
Excluding sales occupations	166.6	167.1	170.0	171.4	173.2	174.2	176.2	177.7	179.3	.9	3.5
Blue-collar occupations	155.4	155.9	157.5	159.7	161.1	161.7	163.4	165.5	166.4	.5	3.3
Service occupations	158.4	159.2	161.1	162.0	163.2	162.4	166.0	167.3	168.0	.4	2.9
State and local government workers	160.1	161.5	162.6	163.2	165.9	166.8	168.0	168.7	171.5	1.7	3.4
Workers, by occupational group:											
White-collar workers	159.3	160.7	161.7	162.2	164.9	165.7	166.8	167.5	170.0	1.5	3.1
Professional specialty and technical	158.1	159.4	160.2	160.8	163.4	164.1	165.1	165.6	168.4	1.7	3.1
Executive, administrative, and managerial	162.3	163.8	165.3	165.7	168.0	169.1	170.1	171.0	172.1	.6	2.4
Administrative support, including clerical	161.0	162.4	163.8	164.4	167.9	168.5	170.4	171.8	174.3	1.5	3.8
Blue-collar workers	158.4	159.8	161.3	161.7	163.6	165.2	166.7	167.5	169.9	1.4	3.9
Workers, by industry division:											
Services	159.7	160.9	161.8	162.3	164.9	165.7	166.5	166.8	169.7	1.7	2.9
Services excluding schools[5]	161.0	162.8	164.0	164.2	166.8	168.2	169.4	170.1	173.0	1.7	3.7
Health services	163.5	165.5	166.4	166.7	169.5	171.0	172.2	172.9	175.7	1.6	3.7
Hospitals	164.1	166.2	167.0	167.3	170.3	171.4	172.4	173.2	176.3	1.8	3.5
Educational services	159.2	160.3	161.1	161.7	164.3	165.0	165.7	165.9	168.8	1.7	2.7
Schools	159.6	160.7	161.4	162.0	164.7	165.3	166.0	166.3	169.2	1.7	2.7
Elementary and secondary	157.7	158.8	159.4	160.0	163.0	163.7	164.4	164.6	168.0	2.1	3.1
Colleges and universities	164.7	165.8	167.0	167.5	169.2	170.0	170.7	171.0	172.4	.8	1.9
Public administration[3]	160.2	161.7	163.4	164.3	167.3	168.1	170.1	171.4	174.1	1.6	4.1

[1] Cost (cents per hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

[2] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[5] Includes, for example, library, social, and health services.

31. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	2002		2003				2004			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2004	
Civilian workers[1]	157.2	157.8	159.3	160.3	161.8	162.3	163.3	164.3	165.7	0.9	2.4
Workers, by occupational group:											
White-collar workers	159.6	160.1	161.9	162.9	164.5	165.1	166.1	167.1	168.7	1.0	2.6
Professional specialty and technical	158.0	158.6	159.3	160.1	161.8	162.5	163.8	164.4	166.5	1.3	2.9
Executive, administrative, and managerial	163.5	163.8	167.9	169.0	170.5	171.2	171.4	172.4	173.4	.6	1.7
Administrative support, including clerical	159.6	160.6	161.8	163.1	164.3	164.9	166.3	167.5	168.8	.8	2.7
Blue-collar workers	151.9	152.6	153.8	154.8	155.8	156.3	157.3	158.4	159.7	.8	2.5
Service occupations	156.2	156.9	158.0	158.7	159.8	160.6	161.2	161.9	162.8	.6	1.9
Workers, by industry division:											
Goods-producing	153.9	155.1	156.3	157.5	158.3	160.6	159.9	161.0	162.3	.8	2.5
Manufacturing	155.4	156.5	158.0	159.0	159.7	160.1	161.3	162.4	163.8	.9	2.6
Service-producing	156.4	158.8	160.5	161.4	163.0	163.6	164.6	165.5	167.0	.9	2.5
Services	160.7	161.1	161.9	162.8	164.7	165.4	166.5	167.4	167.3	1.1	2.8
Health services	159.6	160.9	162.0	163.2	164.7	165.9	167.7	168.6	170.8	1.3	3.7
Hospitals	160.3	162.2	163.5	164.4	166.3	167.7	169.0	169.9	171.8	1.1	3.3
Educational services	159.3	160.1	160.4	160.7	162.7	163.2	163.6	163.8	166.0	1.3	2.0
Public administration[2]	154.8	155.8	157.2	158.0	159.4	160.0	161.1	161.4	162.6	.7	2.0
Nonmanufacturing	157.5	158.0	159.6	160.5	162.1	162.7	163.7	164.6	166.0	.9	2.4
Private industry workers	157.0	157.5	159.3	160.4	161.7	162.3	163.4	164.5	165.9	.9	2.6
Excluding sales occupations	157.0	157.9	159.4	160.5	161.7	162.4	163.5	164.5	165.8	.8	2.5
Workers, by occupational group:											
White-collar workers	160.0	160.4	162.6	163.8	165.3	165.9	167.1	168.2	169.7	.9	2.7
Excluding sales occupations	169.8	160.8	163.6	164.8	166.2	167.0	168.1	169.2	170.6	.8	2.6
Professional specialty and technical occupations	158.2	158.5	159.5	160.5	162.1	163.0	164.7	165.5	167.6	1.3	3.4
Executive, administrative, and managerial occupations	164.3	164.5	169.1	170.3	171.8	172.5	172.7	173.9	174.9	.6	1.8
Sales occupations	156.9	156.8	158.1	159.3	161.6	161.1	162.6	163.9	165.9	1.2	2.7
Administrative support occupations, including clerical	160.3	161.3	162.6	164.0	165.1	165.7	167.2	168.6	169.7	.7	2.8
Blue-collar workers	151.7	152.4	153.6	154.6	155.6	156.1	157.2	158.3	159.5	.8	2.5
Precision production, craft, and repair occupations	151.8	152.3	153.4	154.7	155.5	156.2	157.1	158.3	159.3	.6	2.4
Machine operators, assemblers, and inspectors	152.0	153.2	154.7	155.3	156.8	156.9	158.6	159.8	161.6	1.1	3.1
Transportation and material moving occupations	146.3	146.9	147.8	149.0	149.8	149.8	150.4	151.8	152.9	.7	2.1
Handlers, equipment cleaners, helpers, and laborers	156.0	157.2	158.4	159.0	159.9	160.6	161.8	162.7	163.6	.6	2.3
Service occupations	153.9	154.4	155.5	156.1	157.1	157.8	158.4	159.3	159.8	.3	1.7
Production and nonsupervisory occupations[3]	154.7	155.2	156.4	157.4	158.8	159.4	160.7	161.7	163.1	.9	2.7
Workers, by industry division:											
Goods-producing	153.9	155.0	156.3	157.4	158.3	158.7	159.9	160.9	162.3	.9	2.5
Excluding sales occupations	153.0	154.0	155.4	156.5	157.4	158.0	159.2	160.2	161.2	.6	2.4
White-collar occupations	157.9	158.6	160.0	161.4	161.9	162.1	163.2	164.5	166.0	.9	2.5
Excluding sales occupations	155.4	156.3	158.0	159.2	159.9	160.4	161.5	162.7	163.6	.6	2.3
Blue-collar occupations	151.5	152.6	153.8	154.8	155.9	156.4	157.7	158.6	159.8	.8	2.5
Construction	149.0	150.2	150.6	152.4	153.6	154.0	155.1	155.9	157.1	.8	2.3
Manufacturing	155.4	156.5	158.0	159.0	159.7	160.1	161.3	162.4	163.8	.9	2.6
White-collar occupations	157.7	158.6	160.1	161.6	162.0	162.1	163.3	164.7	166.1	.9	2.5
Excluding sales occupations	155.0	155.9	157.7	158.9	159.5	160.0	161.2	162.5	163.5	.6	2.5
Blue-collar occupations	153.5	154.7	156.3	156.9	157.9	158.5	159.8	160.6	162.1	.9	2.7
Durables	156.0	157.3	158.8	159.7	160.6	160.9	161.9	162.9	164.5	1.0	2.4
Nondurables	154.4	155.2	156.6	157.8	158.3	158.7	160.4	161.6	162.8	.7	2.8
Service-producing	158.4	158.6	160.6	161.7	163.3	163.9	165.0	166.1	167.5	.8	2.6
Excluding sales occupations	159.3	159.6	161.7	162.8	164.2	165.0	166.0	167.1	168.5	.8	2.6
White-collar occupations	160.5	160.7	163.0	164.1	166.0	166.6	167.8	168.9	170.4	.9	2.7
Excluding sales occupations	162.5	162.8	165.3	166.5	168.2	169.0	170.2	171.2	172.8	.9	2.7
Blue-collar occupations	151.8	152.0	153.2	154.3	155.1	155.4	156.2	157.8	158.9	.7	2.5
Service occupations	153.5	154.1	155.1	155.6	156.6	157.4	158.0	158.8	159.4	.4	1.8
Transportation and public utilities	153.4	154.1	154.8	155.6	156.0	156.5	157.6	159.1	160.4	.8	2.8
Transportation	149.6	150.1	150.5	150.6	150.4	150.8	151.7	153.4	155.0	1.0	3.1
Public utilities	158.2	159.3	160.4	162.1	163.4	164.1	165.3	166.4	167.5	.7	2.5
Communications	159.6	160.7	161.9	163.4	165.4	165.9	167.0	167.5	168.8	.8	2.1
Electric, gas, and sanitary services	156.5	157.4	158.6	160.4	161.0	161.8	163.3	165.1	165.9	.5	3.0
Wholesale and retail trade	155.5	155.5	156.7	157.5	159.2	159.5	160.3	161.6	162.5	.6	2.1
Wholesale trade	160.4	161.0	163.4	164.7	164.8	165.3	166.2	167.8	169.7	1.1	3.0
Excluding sales occupations	162.6	163.7	163.9	165.2	165.7	166.3	167.8	167.6	168.6	.6	1.8
Retail trade	152.9	152.7	153.1	153.8	156.3	156.5	157.3	158.4	158.7	.2	1.5
General merchandise stores	150.1	149.2	149.8	152.0	153.1	153.6	154.1	154.9	157.5	1.7	2.9
Food stores	150.1	150.3	151.0	151.6	152.2	152.8	153.8	154.3	154.5	.1	1.5

See footnotes at end of table.

31. Continued—Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	2002		2003				2004			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2004	
Finance, insurance, and real estate	162.4	162.6	171.1	172.4	174.1	174.5	175.2	175.3	176.5	0.7	1.4
Excluding sales occupations	166.1	167.3	176.7	178.5	179.2	210.2	179.2	180.5	181.8	.7	1.5
Banking, savings and loan, and other credit agencies	182.7	183.9	206.4	208.7	209.1	164.5	206.7	207.6	209.5	.9	.2
Insurance	159.6	159.1	161.6	163.0	163.9	164.5	165.1	167.2	168.9	1.0	3.1
Services	161.5	161.7	162.8	164.0	165.9	166.7	168.1	169.3	171.1	1.1	3.1
Business services	164.6	164.8	165.6	166.4	169.1	169.8	171.0	172.7	174.3	.9	3.1
Health services	159.9	160.7	161.9	163.2	164.6	135.8	167.8	168.8	170.9	1.2	3.8
Hospitals	160.2	162.1	163.6	164.6	166.5	167.9	169.4	170.5	172.4	1.1	3.5
Educational services	165.2	166.5	167.1	167.5	170.3	171.0	171.9	172.6	175.5	1.7	3.1
Colleges and universities	163.1	164.3	164.4	165.1	167.6	168.4	169.5	170.0	172.9	1.7	3.2
Nonmanufacturing	157.2	157.5	159.4	160.5	162.1	162.6	163.7	164.8	166.2	.8	2.5
White-collar workers	160.2	160.5	162.8	163.9	165.7	166.3	167.5	168.6	170.1	.9	2.7
Excluding sales occupations	162.1	162.5	164.9	166.1	167.7	168.5	169.7	170.7	172.3	.9	2.7
Blue-collar occupations	149.8	150.2	151.1	152.4	153.4	153.8	154.7	156.1	157.1	.6	2.4
Service occupations	153.4	154.0	155.0	155.5	156.5	157.3	157.9	158.7	159.2	.3	1.7
State and local government workers	160.1	161.5	162.6	163.2	165.9	166.8	168.0	168.7	171.5	1.0	2.0
Workers, by occupational group:											
White-collar workers	157.4	158.4	158.9	159.2	161.0	161.5	162.1	162.4	164.1	1.0	1.9
Professional specialty and technical	157.5	158.4	158.8	159.1	161.0	161.4	162.1	162.3	164.4	1.3	2.1
Executive, administrative, and managerial	159.0	160.1	160.9	161.0	162.5	163.3	163.5	163.8	164.3	.3	1.1
Administrative support, including clerical	155.1	156.0	156.9	157.2	159.1	159.5	160.4	160.8	162.6	1.1	2.2
Blue-collar workers	154.5	155.1	156.2	156.5	157.6	158.3	158.9	159.2	160.7	.9	2.0
Workers, by industry division:											
Services	158.4	159.2	159.5	159.8	161.6	162.1	162.6	162.7	164.8	1.3	2.0
Services excluding schools[4]	159.1	160.3	161.4	161.8	163.2	164.5	165.1	165.6	167.5	1.1	2.6
Health services	160.5	162.2	162.9	163.5	165.1	166.7	167.4	167.8	169.6	1.1	2.7
Hospitals	160.6	162.5	163.1	163.8	165.5	166.7	167.4	167.9	169.9	1.2	2.7
Educational services	158.1	158.9	159.1	159.3	161.2	161.6	162.0	162.1	164.2	1.3	1.9
Schools	158.3	159.0	159.2	159.5	161.4	161.8	162.1	162.3	164.3	1.2	1.8
Elementary and secondary	157.4	158.1	158.2	158.5	160.6	160.9	161.3	161.5	163.8	1.4	2.0
Colleges and universities	160.7	161.6	162.1	162.1	163.5	164.0	164.3	164.4	165.4	.6	1.2
Public administration[2]	154.8	155.8	157.2	158.0	159.4	160.0	161.1	161.4	162.6	.7	2.0

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[4] Includes, for example, library, social, and health services.

33. Employment Cost Index, private nonfarm workers by bargaining status, region, and area size

[June 1989 = 100]

Series	2002		2003				2004			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2004	
COMPENSATION											
Workers, by bargaining status[1]											
Union	158.1	159.5	162.1	164.1	165.7	166.8	171.4	173.9	175.3	0.8	5.8
Goods-producing	156.2	157.8	161.4	163.4	164.7	165.9	172.3	174.6	176.0	.8	6.9
Service-producing	159.9	161.1	162.6	164.6	166.5	167.5	170.2	172.9	174.4	.9	4.7
Manufacturing	155.9	157.9	162.3	163.8	165.0	166.3	175.0	177.0	178.4	.8	8.1
Nonmanufacturing	158.8	159.9	161.4	163.7	165.5	166.5	168.8	171.6	173.0	.8	4.5
Nonunion	162.5	162.8	165.4	166.8	168.4	169.1	171.3	172.7	174.2	.9	3.4
Goods-producing	159.5	160.8	163.6	164.9	166.1	166.7	169.7	170.9	172.4	.9	3.8
Service-producing	162.9	163.3	165.9	167.2	169.0	169.8	171.6	173.2	174.6	.8	3.3
Manufacturing	160.1	161.3	164.5	165.8	166.9	167.3	170.6	172.0	173.8	1.0	4.1
Nonmanufacturing	162.4	162.9	165.4	166.7	168.5	139.3	171.1	172.6	174.0	.8	3.3
Workers, by region[1]											
Northeast	160.5	161.3	163.8	165.2	166.9	167.9	170.2	172.3	173.7	.8	4.1
South	158.9	159.0	160.6	161.6	163.2	163.9	166.4	167.9	169.5	1.0	3.9
Midwest (formerly North Central)	163.5	164.6	169.0	170.4	171.7	172.5	174.7	176.2	177.6	.8	3.4
West	163.8	165.0	167.3	169.5	171.4	172.2	175.3	176.8	178.1	.7	3.9
Workers, by area size[1]											
Metropolitan areas	161.8	162.5	165.2	166.6	168.3	169.1	171.5	173.1	174.6	.9	3.7
Other areas	160.0	169.8	163.5	165.0	166.1	166.9	170.2	172.1	173.3	.7	4.3
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union	151.3	152.5	153.3	154.3	155.3	156.2	157.2	158.7	160.0	.8	3.0
Goods-producing	150.0	151.2	152.4	153.9	154.8	155.4	156.3	157.5	158.7	.8	2.5
Service-producing	152.9	154.1	154.6	155.1	156.3	157.3	158.5	160.3	161.7	.9	3.5
Manufacturing	151.6	153.1	154.6	155.9	156.7	157.1	158.1	159.2	160.5	.8	2.4
Nonmanufacturing	151.1	152.1	152.5	153.5	154.6	155.6	156.6	158.4	159.6	.8	3.2
Nonunion	158.1	158.5	160.4	161.5	163.0	163.4	164.6	165.6	167.0	.8	2.5
Goods-producing	155.5	156.6	157.8	158.9	159.7	160.1	161.4	162.4	163.8	.9	2.6
Service-producing	158.9	159.0	161.2	162.3	164.0	164.5	165.6	166.6	168.0	.8	2.4
Manufacturing	156.8	157.8	159.3	160.2	160.9	161.3	162.6	163.7	165.2	.9	2.7
Nonmanufacturing	158.1	158.3	160.4	161.5	163.1	163.7	164.7	165.7	167.1	.8	2.5
Workers, by region[1]											
Northeast	155.1	155.7	157.3	158.4	160.0	160.9	162.0	163.6	164.9	.8	3.1
South	154.7	154.6	155.3	156.1	157.4	157.9	159.1	160.1	161.6	.9	2.7
Midwest (formerly North Central)	159.2	160.2	164.1	165.0	166.1	166.5	166.9	167.7	169.2	.9	1.9
West	159.3	160.1	161.3	163.1	164.7	165.2	166.8	167.9	169.1	.7	2.7
Workers, by area size[1]											
Metropolitan areas	157.4	157.9	159.6	160.7	162.2	162.7	163.8	164.9	163.3	.8	2.5
Other areas	153.8	154.8	156.8	158.0	158.9	159.5	160.8	162.1	162.1	.7	2.8

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

34. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, medium and large private establishments, selected years, 1980–97

Item	1980	1982	1984	1986	1988	1989	1991	1993	1995	1997
Scope of survey (in 000's)	21,352	21,043	21,013	21,303	31,059	32,428	31,163	28,728	33,374	38,409
Number of employees (in 000's):										
With medical care	20,711	20,412	20,383	20,238	27,953	29,834	25,865	23,519	25,546	29,340
With life insurance	20,498	20,201	20,172	20,451	28,574	30,482	29,293	26,175	29,078	33,495
With defined benefit plan	17,936	17,676	17,231	16,190	19,567	20,430	18,386	16,015	17,417	19,202
Time-off plans										
Participants with:										
Paid lunch time	10	9	9	10	11	10	8	9	–	–
Average minutes per day	–	25	26	27	29	26	30	29	–	–
Paid rest time	75	76	73	72	72	71	67	68	–	–
Average minutes per day	–	25	26	26	26	26	28	26	–	–
Paid funeral leave	–	–	–	88	85	84	80	83	80	81
Average days per occurrence	–	–	–	3.2	3.2	3.3	3.3	3.0	3.3	3.7
Paid holidays	99	99	99	99	96	97	92	91	89	89
Average days per year	10.1	10.0	9.8	10.0	9.4	9.2	10.2	9.4	9.1	9.3
Paid personal leave	20	24	23	25	24	22	21	21	22	20
Average days per year	–	3.8	3.6	3.7	3.3	3.1	3.3	3.1	3.3	3.5
Paid vacations	100	99	99	100	98	97	96	97	96	95
Paid sick leave [1]	62	67	67	70	69	68	67	65	58	56
Unpaid maternity leave	–	–	–	–	33	37	37	60	–	–
Unpaid paternity leave	–	–	–	–	16	18	26	53	–	–
Unpaid family leave	–	–	–	–	–	–	–	–	84	93
Insurance plans										
Participants in medical care plans	97	97	97	95	90	92	83	82	77	76
Percent of participants with coverage for:										
Home health care	–	–	46	66	76	75	81	86	78	85
Extended care facilities	58	62	62	70	79	80	80	82	73	78
Physical exam	–	–	8	18	28	28	30	42	56	63
Percent of participants with employee contribution required for:										
Self coverage	26	27	36	43	44	47	51	61	67	69
Average monthly contribution	–	–	$11.93	$12.80	$19.29	$25.31	$26.60	$31.55	$33.92	$39.14
Family coverage	46	51	58	63	64	66	69	76	78	80
Average monthly contribution	–	–	$35.93	$41.40	$60.07	$72.10	$96.97	$107.42	$118.33	$130.07
Participants in life insurance plans	96	96	96	96	92	94	94	91	87	87
Percent of participants with:										
Accidental death and dismemberment insurance	69	72	74	72	78	71	71	76	77	74
Survivor income benefits	–	–	–	10	8	7	6	5	7	6
Retiree protection available	–	64	64	59	49	42	44	41	37	33
Participants in long-term disability insurance plans	40	43	47	48	42	45	40	41	42	43
Participants in sickness and accident insurance plans	54	51	51	49	46	43	45	44	–	–
Participants in short-term disability plans [1]	–	–	–	–	–	–	–	–	53	55
Retirement plans										
Participants in defined benefit pension plans	84	84	82	76	63	63	59	58	52	50
Percent of participants with:										
Normal retirement prior to age 65	55	58	63	64	59	62	55	52	52	52
Early retirement available	98	97	97	98	98	97	98	95	96	95
Ad hoc pension increase in last 5 years	–	–	47	35	26	22	7	6	4	10
Terminal earnings formula	53	52	54	57	55	64	56	61	58	56
Benefit coordinated with Social Security	45	45	56	62	62	63	54	48	51	49
Participants in defined contribution plans	–	–	–	60	45	48	48	49	55	57
Participants in plans with tax-deferred savings arrangements	–	–	–	33	36	41	44	43	54	55
Other benefits										
Employees eligible for:										
Flexible benefits plans	–	–	–	2	5	9	10	12	12	13
Reimbursement accounts [2]	–	–	–	5	12	23	36	52	38	32
Premium conversion plans	–	–	–	–	–	–	–	–	5	7

[1] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1995 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-terms disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[2] Prior to 1995, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

35. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, small private establishments and State and local governments, 1987, 1990, 1992, 1994, and 1996

Item	Small private establishments				State and local governments			
	1990	1992	1994	1996	1987	1990	1992	1994
Scope of survey (in 000's)	32,466	34,360	35,910	39,816	10,321	12,972	12,466	12,907
Number of employees (in 000's):								
With medical care	22,402	24,396	23,536	25,599	9,599	12,064	11,219	11,192
With life insurance	20,778	21,990	21,955	24,635	8,773	11,415	11,095	11,194
With defined benefit plan	6,493	7,559	5,480	5,883	9,599	11,675	10,845	11,708
Time-off plans								
Participants with:								
Paid lunch time	8	9	–	–	17	11	10	–
Average minutes per day	37	37	–	–	34	36	34	–
Paid rest time	48	49	–	–	58	56	53	–
Average minutes per day	27	26	–	–	29	29	29	–
Paid funeral leave	47	50	50	51	56	63	65	62
Average days per occurrence	2.9	3.0	3.1	3.0	3.7	3.7	3.7	3.7
Paid holidays	84	82	82	80	81	74	75	73
Average days per year[1]	9.5	9.2	7.5	7.6	10.9	13.6	14.2	11.5
Paid personal leave	11	12	13	14	38	39	38	38
Average days per year	2.8	2.6	2.6	3.0	2.7	2.9	2.9	3.0
Paid vacations	88	88	88	86	72	67	67	66
Paid sick leave[2]	47	53	50	50	97	95	95	94
Unpaid leave	17	18	–	–	57	51	59	–
Unpaid paternity leave	8	7	–	–	30	33	44	–
Unpaid family leave	–	–	47	48	–	–	–	93
Insurance plans								
Participants in medical care plans	69	71	66	64	93	93	90	87
Percent of participants with coverage for:								
Home health care	79	80	–	–	76	82	87	84
Extended care facilities	83	84	–	–	78	79	84	81
Physical exam	26	28	–	–	36	36	47	55
Percent of participants with employee contribution required for:								
Self coverage	42	47	52	52	35	38	43	47
Average monthly contribution	$25.13	$36.51	$40.97	$42.63	$15.74	$25.53	$28.97	$30.20
Family coverage	67	73	76	75	71	65	72	71
Average monthly contribution	$109.34	$150.54	$159.63	$181.53	$71.89	$117.59	$139.23	$149.70
Participants in life insurance plans	64	64	61	62	85	88	89	87
Percent of participants with:								
Accidental death and dismemberment insurance	78	76	79	77	67	67	74	64
Survivor income benefits	1	1	2	1	1	1	1	2
Retiree protection available	19	25	20	13	55	45	46	46
Participants in long-term disability insurance plans	19	23	20	22	31	27	28	30
Participants in sickness and accident insurance plans	6	26	26	–	14	21	22	21
Participants in short-term disability plans[2]	–	–	–	29	–	–	–	–
Retirement plans								
Participants in defined benefit pension plans	20	22	15	15	93	90	87	91
Percent of participants with:								
Normal retirement prior to age 65	54	50	–	47	92	89	92	92
Early retirement available	95	95	–	92	90	88	89	87
Ad hoc pension increase in last 5 years	7	4	–	–	33	16	10	13
Terminal earnings formula	58	54	–	53	100	100	100	99
Benefit coordinated with Social Security	49	46	–	44	18	8	10	49
Participants in defined contribution plans	31	33	34	38	9	9	9	9
Participants in plans with tax-deferred savings arrangements	17	24	23	28	28	45	45	24
Other benefits								
Employees eligible for:								
Flexible benefits plans	1	2	3	4	5	5	5	5
Reimbursement accounts[3]	8	14	19	12	5	31	50	64
Premium conversion plans	–	–	–	7	–	–	–	–

[1] Methods used to calculate the average number of paid holidays were revised in 1994 to count partial days more precisely. Average holidays for 1994 are not comparable with those reported in 1990 and 1992.

[2] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1996 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-term disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[3] Prior to 1996, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

36. Work stoppages involving 1,000 workers or more

Measure	Annual totals		2003			2004[P]									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Number of stoppages:															
Beginning in period	19	14	5	0	0	0	1	1	0	2	3	0	2	2	–
In effect during period	20	15	5	3	2	1	2	1	1	2	4	1	2	3	–
Workers involved:															
Beginning in period (in thousands)	46	129.2	82.2	8.0	.0	.0	6.5	2.2	.0	103.0	27.6	.0	3.7	6.0	–
In effect during period (in thousands)	47	130.5	82.2	76.7	70.5	61.3	66.5	2.2	2.2	103.0	28.6	1.6	3.7	8.0	–
Days idle:															
Number (in thousands)	6,596	4,091.2	1,168.5	1,219.0	1,473.4	1,203.9	1,146.5	44.0	26.4	204.0	94.0	3.2	52.5	60.0	–
Percent of estimated working time[1]	([2])	.01	.04	.05	.05	.05	.05	.00	.00	.01	.00	.00	.00	.00	–

[1] Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in "Total economy measures of strike idleness," *Monthly Labor Review*, October 1968, pp.54–56.

[2] Less than 0.005.

NOTE: Dash indicates data not available. P = preliminary.

37. Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items	179.9	184.0	185.0	184.5	184.3	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9
All items (1967 = 100)	538.8	551.1	554.3	552.7	552.1	554.9	557.9	561.5	563.2	566.4	568.2	567.5	567.6	568.7	571.9
Food and beverages	176.8	180.5	182.2	182.9	184.7	184.3	184.5	184.9	185.0	186.5	186.8	187.2	187.3	187.2	188.4
Food	176.2	180.0	181.7	182.4	180.0	183.8	184.1	184.4	184.5	186.1	186.3	186.8	186.8	186.7	187.9
Food at home	175.6	179.4	181.5	182.4	184.1	184.0	184.0	184.3	184.1	186.6	186.8	187.1	186.7	186.1	187.9
Cereals and bakery products	198.0	202.8	203.1	202.5	202.9	203.9	204.4	204.8	205.5	206.1	206.8	207.2	207.2	206.4	207.0
Meats, poultry, fish, and eggs	162.1	169.3	174.0	179.3	181.1	179.9	179.7	179.5	179.2	181.1	182.3	183.7	183.7	183.4	182.9
Dairy and related products[1]	168.1	167.9	171.8	171.2	173.0	172.4	172.1	171.9	174.0	185.9	188.8	187.7	184.9	181.6	182.1
Fruits and vegetables	220.9	225.9	226.3	227.5	232.4	232.4	229.7	230.1	228.3	231.7	226.7	224.5	224.0	226.0	240.0
Nonalcoholic beverages and beverage materials	139.2	139.8	140.5	137.9	139.3	140.7	141.4	140.8	139.7	169.9	139.8	140.5	140.3	140.3	165.4
Other foods at home	160.8	162.6	163.0	162.0	163.0	162.8	163.7	165.1	165.0	165.4	165.8	166.0	166.2	165.2	162.6
Sugar and sweets	159.0	162.0	162.5	161.7	161.0	163.0	163.9	163.3	162.6	163.5	162.8	163.8	164.4	163.5	170.2
Fats and oils	155.4	157.4	159.7	157.3	157.7	160.7	162.3	166.2	166.2	169.4	171.3	171.9	169.7	170.4	180.1
Other foods	177.1	178.8	178.7	177.9	179.6	178.0	178.9	180.4	180.4	180.1	180.5	180.3	180.9	179.4	179.9
Other miscellaneous foods[1,2]	109.2	110.3	110.7	109.0	109.8	109.1	109.5	111.7	110.5	110.8	110.9	109.4	111.5	110.5	189.4
Food away from home[1]	178.3	182.1	183.3	183.8	184.3	184.9	185.5	185.8	186.2	186.7	187.0	187.8	188.4	188.9	126.8
Other food away from home[1,2]	117.7	121.3	122.3	122.7	122.9	123.9	124.0	124.1	124.7	124.8	124.8	125.1	125.4	125.9	193.6
Alcoholic beverages	183.6	187.2	188.1	188.6	188.7	189.4	189.9	190.8	191.8	191.7	192.4	192.2	192.5	193.4	191.0
Housing	180.3	184.8	185.7	185.1	185.1	186.3	187.0	187.9	188.4	188.9	190.3	190.9	191.2	191.0	220.6
Shelter	208.1	213.1	214.7	214.2	213.1	215.2	216.0	217.8	218.4	218.7	219.2	220.0	220.3	220.2	212.8
Rent of primary residence	199.7	205.5	206.9	207.5	205.5	208.3	208.8	209.2	209.7	210.2	210.7	211.2	211.9	212.4	212.8
Lodging away from home	118.3	119.3	120.9	115.0	119.3	117.2	120.0	128.1	129.1	128.2	129.1	132.2	130.6	127.0	128.0
Owners' equivalent rent of primary residence[3]	214.7	219.9	221.4	221.9	219.9	222.6	222.9	223.3	223.9	224.3	224.7	225.1	225.7	226.1	226.5
Tenants' and household insurance[1,2]	108.7	114.8	116.0	114.3	114.8	114.8	115.0	115.1	115.7	116.1	116.2	116.1	116.3	116.6	116.3
Fuels and utilities	143.6	154.5	155.0	152.9	154.5	156.3	156.9	155.2	155.6	158.1	165.5	166.6	167.7	166.7	162.8
Fuels	127.2	138.2	138.2	135.7	138.7	139.2	139.5	137.6	138.0	140.4	148.5	149.5	150.5	149.3	144.9
Fuel oil and other fuels	115.5	139.5	131.4	134.8	139.1	149.9	155.1	152.5	149.6	150.4	150.7	151.1	157.4	161.6	177.3
Gas (piped) and electricity	134.4	145.0	145.6	142.6	145.0	145.5	145.5	143.5	144.2	146.8	155.8	156.9	157.6	156.0	150.0
Household furnishings and operations	128.3	126.1	125.1	124.9	124.7	125.3	125.7	125.7	125.6	125.4	125.6	125.2	124.8	125.0	126.1
Apparel	124.0	120.9	124.8	123.1	119.0	115.8	118.6	123.5	124.3	123.4	120.1	115.9	116.5	121.2	124.1
Men's and boys' apparel	121.7	118.0	120.8	121.4	118.0	115.5	117.1	119.8	120.3	120.3	117.7	115.2	113.8	116.2	118.3
Women's and girls' apparel	115.8	113.1	118.8	115.7	110.9	105.7	110.3	117.6	118.7	116.9	112.3	106.1	107.5	114.4	119.2
Infants' and toddlers' apparel[1]	126.4	122.1	125.2	123.0	119.2	117.7	119.3	121.9	120.5	118.1	116.2	114.5	115.0	119.5	120.6
Footwear	121.4	119.6	121.8	121.0	118.5	115.9	117.0	120.1	121.0	120.3	118.4	115.1	117.3	121.7	122.1
Transportation	152.9	157.6	157.1	155.7	154.7	157.0	158.8	160.5	161.8	165.2	165.7	164.0	162.9	162.9	166.4
Private transportation	148.8	153.6	153.0	151.7	150.8	153.2	154.9	156.6	157.9	161.5	161.9	160.0	159.1	159.4	162.9
New and used motor vehicles[2]	99.2	96.5	94.6	94.6	94.4	94.3	94.4	94.2	94.1	94.0	93.6	93.5	93.4	93.9	94.3
New vehicles	140.0	137.9	136.5	137.5	138.0	138.0	138.3	137.9	137.6	137.4	137.2	135.9	134.9	134.9	135.9
Used cars and trucks[1]	152.0	142.9	135.1	132.0	131.0	130.8	131.0	131.2	131.3	131.8	130.6	132.1	133.8	136.5	136.8
Motor fuel	116.6	135.8	136.6	131.2	127.8	136.7	143.1	150.5	155.9	170.5	173.3	165.2	162.0	161.2	173.1
Gasoline (all types)	116.0	135.1	136.0	130.6	127.2	136.1	142.5	149.8	155.3	169.8	172.7	164.5	161.2	160.5	172.2
Motor vehicle parts and equipment	106.9	107.8	107.9	107.9	107.8	108.0	108.0	107.8	107.9	107.9	108.2	108.8	109.0	109.3	109.5
Motor vehicle maintenance and repair	190.2	195.6	196.9	197.2	198.0	198.2	198.2	198.5	198.6	199.0	199.7	200.3	200.8	200.7	201.7
Public transportation	207.4	209.3	211.3	207.9	205.6	206.3	208.1	209.9	211.5	210.7	212.3	214.4	209.7	205.3	206.5
Medical care	285.6	297.1	299.9	300.8	302.1	303.6	306.0	307.5	308.3	309.0	310.0	311.0	311.6	312.3	313.3
Medical care commodities	256.4	262.8	264.7	264.0	265.0	265.5	266.7	267.3	268.5	269.1	269.6	269.9	270.0	270.9	271.7
Medical care services	292.9	306.0	309.1	310.6	311.9	313.8	316.6	318.4	319.2	319.8	321.0	322.3	323.1	323.7	324.8
Professional services	253.9	261.2	263.0	263.0	261.2	262.5	268.0	269.7	270.6	270.9	271.6	272.3	273.3	273.3	273.7
Hospital and related services	367.8	394.8	400.7	405.6	407.0	409.7	412.5	413.8	413.6	414.6	416.9	419.1	418.8	420.3	422.5
Recreation[2]	106.2	107.5	107.6	107.8	107.7	107.9	108.4	108.8	109.0	108.8	108.9	108.7	108.5	108.6	108.7
Video and audio[1,2]	102.6	103.6	103.5	103.8	103.3	103.6	104.1	104.3	104.7	104.6	104.4	104.4	104.1	104.0	104.2
Education and communication[2]	107.9	109.8	110.9	110.8	110.9	111.1	111.2	111.1	110.9	110.6	110.8	110.9	111.7	112.9	112.5
Education[2]	126.0	134.4	139.1	139.0	139.4	140.1	140.4	140.6	140.7	140.9	141.6	142.1	145.1	147.9	148.3
Educational books and supplies	317.6	335.4	339.7	336.0	342.8	345.4	348.6	348.9	349.5	349.6	350.6	349.5	353.3	352.8	353.8
Tuition, other school fees, and child care	362.1	362.1	401.1	401.2	401.7	403.6	404.2	404.7	404.9	405.6	407.6	409.4	418.3	427.4	428.2
Communication[1,2]	92.3	89.7	88.4	88.2	88.2	88.1	88.1	87.7	87.4	86.9	86.8	86.5	86.1	86.2	85.5
Information and information processing[1,2]	90.8	87.8	86.4	86.2	86.2	86.1	86.1	85.7	85.4	84.8	84.7	84.5	84.0	84.1	83.4
Telephone services[1,2]	99.7	98.3	97.1	97.2	97.2	97.0	97.1	96.7	96.5	95.9	95.8	95.6	95.0	95.3	94.6
Information and information processing other than telephone services[1,4]	18.3	16.1	15.6	15.4	15.3	15.3	15.2	15.2	15.0	14.9	14.9	14.8	14.7	14.7	14.5
Personal computers and peripheral equipment[1,2]	22.2	17.6	16.5	16.3	16.2	16.2	16.0	15.8	15.9	15.7	15.5	15.3	15.1	15.0	14.6
Other goods and services	293.2	298.7	300.2	300.0	300.2	301.4	302.3	303.1	303.6	303.8	304.1	305.1	305.5	306.3	306.8
Tobacco and smoking products	461.5	469.0	469.5	469.1	470.4	473.0	472.6	473.6	473.3	473.5	476.0	480.5	481.6	482.9	482.3
Personal care[1]	174.7	178.0	179.1	179.0	179.0	179.7	180.4	180.9	181.3	181.4	181.4	181.7	181.9	182.3	182.8
Personal care products[1]	154.7	153.5	153.6	153.2	153.4	153.8	154.5	154.5	154.5	154.6	153.8	153.4	152.8	153.5	154.0
Personal care services[1]	188.4	193.2	195.6	194.2	194.3	194.6	195.2	195.8	196.1	196.6	196.9	197.5	198.9	199.1	199.4

See footnotes at end of table.

37. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Miscellaneous personal services	274.4	283.5	285.8	287.0	287.1	288.8	290.4	291.6	292.7	293.1	293.6	294.4	295.2	295.9	296.3
Commodity and service group:															
Commodities	149.7	151.2	151.4	150.9	150.4	151.1	152.3	153.7	154.3	156.0	155.8	154.5	154.2	154.9	157.1
Food and beverages	176.8	180.5	182.2	182.9	184.1	184.3	184.5	184.9	185.0	186.5	186.8	187.2	187.3	187.2	188.4
Commodities less food and beverages	134.2	134.5	134.1	132.9	131.7	132.6	134.2	136.0	136.9	138.6	138.2	136.1	135.6	136.7	139.4
Nondurables less food and beverages	145.1	149.7	151.2	149.0	146.7	148.4	151.4	155.3	157.2	160.9	160.5	156.7	156.1	157.8	162.6
Apparel	124.0	120.9	124.8	123.1	119.0	115.8	118.6	123.5	124.3	123.4	120.1	115.9	116.5	121.2	124.1
Nondurables less food, beverages, and apparel	162.2	171.5	171.6	169.1	167.7	172.3	175.6	179.1	181.7	188.2	189.5	185.8	184.4	184.4	190.6
Durables	121.4	117.5	115.2	115.1	115.0	115.1	115.3	115.1	115.0	114.8	114.5	114.1	113.7	114.1	114.7
Services	209.8	216.5	218.4	217.9	217.9	219.1	219.9	221.0	221.5	221.9	223.3	224.1	224.5	224.5	224.5
Rent of shelter[3]	216.7	221.9	223.5	223.0	222.9	224.1	224.9	226.8	227.4	227.7	228.3	229.2	229.4	229.3	229.8
Transporatation services	209.1	216.3	218.9	218.6	217.7	218.7	219.3	219.7	220.0	220.0	220.5	221.6	220.8	220.1	221.4
Other services	246.4	254.4	257.2	257.3	257.4	258.4	259.2	259.5	259.7	259.6	260.2	260.5	261.9	263.8	263.7
Special indexes:															
All items less food	180.5	184.7	185.6	184.9	184.4	185.5	186.6	188.0	188.6	189.6	190.3	189.9	189.9	190.4	191.4
All items less shelter	170.8	174.6	175.5	174.9	174.7	175.6	176.7	177.6	178.2	179.6	180.2	179.6	179.5	180.1	181.4
All items less medical care	174.3	178.1	179.1	178.5	178.2	179.1	180.1	181.3	181.8	182.9	183.5	183.2	183.2	183.6	184.6
Commodities less food	136.0	136.5	136.1	135.0	133.8	134.7	136.3	138.0	138.9	140.6	140.3	138.2	137.7	138.8	141.1
Nondurables less food	147.4	151.9	153.3	151.3	149.2	150.8	153.7	157.5	159.3	162.8	162.4	158.8	158.2	159.9	164.2
Nondurables less food and apparel	163.3	172.1	172.2	170.0	168.8	173.0	176.1	179.4	181.7	187.7	189.0	185.6	184.3	184.4	190.0
Nondurables	161.1	165.3	166.8	166.1	165.4	166.4	168.1	170.3	171.4	174.1	174.0	172.2	171.9	172.8	175.8
Services less rent of shelter[3]	217.5	226.4	228.7	228.2	228.4	229.7	230.6	230.7	231.1	231.7	234.2	235.0	235.6	235.9	235.1
Services less medical care services	202.5	208.7	210.5	209.9	209.9	211.0	211.7	212.7	213.2	213.6	215.0	215.8	216.2	216.1	216.0
Energy	121.7	136.5	136.9	133.1	131.8	137.4	140.6	143.1	145.9	154.1	159.7	156.3	155.3	154.3	157.7
All items less energy	187.7	190.6	191.7	191.6	191.5	191.9	192.7	193.7	194.1	194.3	194.4	194.5	194.7	195.2	196.0
All items less food and energy	190.5	193.2	194.3	193.9	193.6	194.0	194.9	196.1	196.5	196.5	196.6	196.6	196.8	197.4	198.2
Commodities less food and energy	143.7	140.9	140.4	139.9	139.0	138.5	139.3	140.3	140.5	140.2	139.4	138.2	138.1	139.4	140.5
Energy commodities	117.1	136.7	137.0	132.1	129.0	138.2	144.6	151.3	156.3	170.1	172.8	165.1	162.5	162.0	174.2
Services less energy	217.5	223.8	225.8	225.6	225.5	226.6	227.5	228.9	229.4	229.6	230.2	231.0	231.4	231.6	232.1
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	175.9	179.8	180.7	180.2	179.9	180.9	181.9	182.9	183.5	184.7	185.3	184.9	185.0	185.4	186.5
All items (1967 = 100)	523.9	535.6	538.2	536.7	536.0	538.7	541.7	544.8	546.5	550.2	551.9	550.8	551.0	552.4	555.7
Food and beverages	176.1	179.9	181.7	182.4	183.6	183.8	184.0	184.4	184.5	186.0	186.4	186.8	186.9	186.8	187.9
Food	176.5	179.4	181.2	181.9	183.1	183.3	183.5	183.8	183.9	185.6	185.9	186.3	186.4	186.2	187.4
Food at home	175.1	178.5	180.7	181.6	183.3	183.2	183.2	183.5	183.3	185.8	186.1	186.3	186.1	185.5	187.1
Cereals and bakery products	198.0	202.8	203.2	202.4	202.4	203.8	204.4	204.9	205.5	206.0	206.7	207.2	207.0	206.3	206.9
Meats, poultry, fish, and eggs	162.0	169.2	173.8	179.2	181.0	179.9	179.7	179.6	179.1	181.1	182.4	183.7	183.7	183.4	183.0
Dairy and related products[1]	167.2	167.6	171.7	171.0	172.7	172.2	171.7	171.3	173.6	186.1	189.0	187.8	184.9	181.4	181.8
Fruits and vegetables	222.9	224.3	224.9	225.3	229.7	229.7	227.5	227.8	225.5	228.9	224.3	222.3	222.2	223.9	238.0
Nonalcoholic beverages and beverage materials	138.6	139.1	139.8	137.3	138.6	140.0	140.8	140.1	139.1	139.3	139.3	139.8	139.6	139.7	140.0
Other foods at home	160.4	162.2	162.5	161.6	162.5	162.3	163.3	164.7	164.6	165.1	165.5	165.6	165.8	164.8	165.0
Sugar and sweets	158.8	161.6	162.1	161.4	160.5	162.4	163.2	162.6	161.9	162.9	162.2	162.9	163.8	163.1	162.2
Fats and oils	155.3	157.4	159.6	157.3	157.7	160.7	162.2	166.0	166.1	169.4	171.4	172.0	169.9	170.3	170.0
Other foods	177.6	179.2	179.0	178.3	180.0	178.4	179.4	180.8	180.8	180.5	180.8	180.7	181.4	179.7	180.5
Other miscellaneous foods[1,2]	109.7	110.8	111.2	109.5	110.3	109.6	110.1	112.2	111.0	111.2	111.4	109.7	112.0	111.0	110.3
Food away from home[1]	178.2	182.0	183.3	183.7	184.2	184.8	185.3	185.6	186.1	186.6	186.8	187.6	188.2	188.8	189.3
Other food away from home[1,2]	118.1	121.5	122.5	122.9	123.1	123.6	123.8	123.8	124.3	124.6	124.7	124.9	125.2	125.8	126.8
Alcoholic beverages	183.3	187.1	188.1	188.8	188.9	189.5	190.0	191.2	192.1	192.0	192.7	192.2	192.8	194.0	193.9
Housing	175.7	180.4	181.3	180.9	181.0	182.1	182.6	183.2	183.6	184.1	185.6	186.2	186.6	186.5	186.2
Shelter	201.9	206.9	208.3	208.2	208.2	209.2	209.8	211.0	211.5	211.8	212.2	213.0	213.4	213.4	213.8
Rent of primary residence	199.0	204.7	206.1	206.6	207.0	207.4	208.0	208.4	208.9	209.4	209.9	210.3	211.0	211.6	212.0
Lodging away from home[2]	118.4	119.8	121.7	116.2	113.4	118.5	121.1	128.8	129.8	128.2	128.8	133.0	131.6	127.7	128.3
Owners' equivalent rent of primary residence[3]	195.1	199.7	201.0	201.4	201.7	202.1	202.3	202.7	203.1	203.6	203.9	204.2	204.7	205.1	205.5
Tenants' and household insurance[1,2]	108.7	114.7	116.0	114.4	114.4	114.9	115.1	115.2	116.0	116.4	116.5	116.3	116.5	116.8	116.5
Fuels and utilities	142.9	153.9	154.3	152.3	153.0	155.6	156.2	154.7	155.1	157.4	165.0	166.1	167.2	166.2	161.9
Fuels	126.1	137.0	137.0	134.7	135.4	138.0	138.3	136.6	137.0	139.3	147.4	148.4	149.3	148.2	143.5
Fuel oil and other fuels	115.0	138.7	130.7	134.4	136.2	149.6	154.5	152.0	148.9	149.6	149.8	150.2	156.8	161.1	177.2
Gas (piped) and electricity	133.4	144.1	144.6	141.9	142.5	144.7	144.7	142.9	143.5	146.1	155.1	156.2	156.8	155.3	149.1
Household furnishings and operations	124.4	121.9	120.9	120.7	120.4	121.0	121.4	121.4	121.3	121.1	121.3	120.7	120.4	120.6	121.7
Apparel	123.1	120.0	123.9	122.6	118.7	115.7	118.3	122.9	123.8	122.8	119.6	115.6	115.9	120.6	123.5
Men's and boys' apparel	121.7	117.5	120.0	121.1	117.8	115.6	117.4	120.0	120.6	120.3	117.8	115.2	113.3	115.6	117.8
Women's and girls' apparel	114.6	112.1	118.2	115.3	110.5	105.5	109.8	117.4	118.4	116.7	112.2	106.0	106.9	114.0	119.3
Infants' and toddlers' apparel[1]	128.6	124.1	127.7	125.0	121.4	120.1	122.2	125.2	123.4	120.9	118.8	117.0	117.6	122.3	123.3
Footwear	121.2	119.1	121.1	120.4	117.8	115.6	116.4	118.6	119.6	119.0	117.0	114.4	116.3	120.4	120.6
Transportation	151.8	156.3	155.4	153.6	152.5	154.9	156.8	158.5	159.9	163.6	164.0	162.2	161.4	161.6	165.3
Private transportation	149.0	153.5	152.5	150.8	149.7	152.2	154.0	155.7	157.1	160.9	161.3	159.3	158.6	159.1	162.7
New and used motor vehicles[2]	99.4	96.0	93.5	93.1	92.8	92.7	92.8	92.6	92.6	92.5	92.1	92.1	92.2	92.3	93.3

See footnotes at end of table.

37. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
New vehicles	141.1	139.0	137.8	138.7	139.2	139.2	139.5	139.0	138.7	138.5	138.2	137.0	136.0	136.0	136.9
Used cars and trucks[1]	152.8	143.7	135.9	132.8	131.7	131.6	131.7	132.0	132.1	132.6	131.4	133.0	134.6	137.3	137.6
Motor fuel	117.0	136.1	136.9	131.5	128.1	137.1	143.6	150.9	156.5	171.1	173.8	165.6	162.4	161.7	173.6
Gasoline (all types)	116.4	135.5	136.4	130.9	127.6	136.6	143.0	150.3	155.8	170.4	173.2	165.0	161.7	161.0	172.9
Motor vehicle parts and equipment	106.1	107.3	107.5	107.5	107.3	107.6	107.6	107.4	107.5	107.5	107.8	108.2	108.4	108.7	108.9
Motor vehicle maintenance and repair	191.7	197.3	198.6	198.9	199.8	199.9	200.1	200.3	200.4	200.8	201.5	202.1	202.7	202.7	203.8
Public transportation	202.6	206.0	208.7	205.8	203.6	204.6	206.2	208.0	209.4	208.8	210.0	212.1	208.0	203.1	204.2
Medical care	284.6	296.3	299.1	300.1	301.4	302.8	305.4	306.9	307.7	308.4	309.4	310.4	311.0	311.7	312.7
Medical care commodities	251.1	257.4	259.2	258.5	259.4	259.8	260.9	261.5	262.5	263.3	263.8	263.7	263.8	264.8	265.4
Medical care services	292.5	305.9	309.1	310.6	311.9	313.8	316.8	318.6	319.4	320.0	321.2	322.4	323.2	323.9	325.0
Professional services	256.0	263.4	265.2	265.2	266.5	267.8	270.6	272.3	273.2	273.5	274.1	274.8	275.8	275.9	276.3
Hospital and related services	363.2	391.2	397.5	402.4	403.4	405.9	408.7	409.9	409.8	410.7	413.0	415.2	414.9	416.4	418.5
Recreation[2]	104.6	105.5	105.4	105.6	105.5	105.6	106.2	106.5	106.7	106.6	106.7	106.3	106.1	106.2	106.2
Video and audio[1,2]	102.0	102.9	102.8	103.0	102.5	102.7	103.2	103.5	103.9	103.9	103.7	103.7	103.4	103.3	103.5
Education and communication[2]	107.6	109.0	109.7	109.6	109.7	109.8	110.0	109.8	109.6	109.2	109.4	109.4	109.9	110.8	110.5
Education[2]	125.9	133.8	138.1	138.0	138.0	139.1	139.4	139.6	139.7	139.9	140.6	141.0	143.6	146.3	146.7
Educational books and supplies	318.5	336.5	340.6	337.5	343.8	346.1	349.5	349.9	350.4	350.4	351.5	350.4	354.7	354.8	355.6
Tuition, other school fees, and child care	354.8	377.3	390.1	390.2	390.7	392.8	393.3	393.8	394.1	394.6	396.7	398.1	405.8	414.0	415.2
Communication[1,2]	93.7	91.2	89.9	89.8	89.7	89.6	89.6	89.3	89.0	88.4	88.4	88.1	87.6	87.8	87.1
Information and information processing[1,2]	92.7	89.9	88.5	88.4	88.3	88.2	88.2	87.9	87.5	87.0	86.9	86.7	86.2	86.3	85.6
Telephone services[1,2]	99.9	98.5	97.3	97.4	97.4	97.2	97.3	96.9	96.7	96.1	96.1	95.8	95.2	95.5	94.8
Information and information processing other than telephone services[1,4]	19.0	16.7	16.2	15.9	15.8	15.8	15.8	15.7	15.5	15.4	15.4	15.3	15.3	15.2	15.0
Personal computers and peripheral equipment[1,2]	21.8	17.3	16.2	16.0	15.9	15.8	15.7	15.5	15.6	15.4	15.2	15.0	14.9	14.8	14.3
Other goods and services	302.0	307.0	308.2	307.7	308.1	309.3	310.0	310.8	311.3	311.5	311.8	313.2	313.5	314.4	314.7
Tobacco and smoking products	463.2	470.5	470.7	470.2	471.5	473.8	473.2	474.2	474.1	474.4	476.9	481.6	482.6	483.9	483.0
Personal care[1]	174.1	177.0	178.0	177.7	177.8	177.4	179.1	179.7	180.1	180.2	180.0	180.3	180.5	180.9	181.4
Personal care products[1]	155.5	154.2	154.1	153.8	154.2	154.3	155.0	155.0	155.1	155.1	154.3	153.9	153.1	154.0	154.3
Personal care services[1]	189.1	193.9	196.3	194.8	194.9	195.1	195.7	196.3	196.6	197.1	197.5	198.1	199.5	199.7	199.9
Miscellaneous personal services	274.0	283.3	285.6	286.7	286.6	288.4	290.2	291.6	292.9	293.1	293.5	294.7	295.4	296.2	296.6
Commodity and service group:															
Commodities	150.4	151.8	151.9	151.3	150.7	151.5	152.7	154.1	154.8	156.7	156.6	155.2	154.9	155.7	158.0
Food and beverages	176.1	179.9	181.7	182.4	183.6	183.8	184.0	184.4	184.5	186.0	186.4	186.8	186.9	186.8	187.9
Commodities less food and beverages	135.5	135.8	135.2	133.8	132.5	133.5	135.2	137.0	138.0	140.0	139.6	137.5	137.1	138.2	141.0
Nondurables less food and beverages	147.0	152.1	153.6	151.4	149.0	151.0	154.3	158.4	160.5	164.7	164.4	160.4	159.5	161.2	166.5
Apparel	123.1	120.0	123.9	122.6	118.7	115.7	118.3	122.9	123.8	122.8	119.6	115.6	115.9	120.6	123.5
Nondurables less food, beverages, and apparel	165.3	175.6	175.7	172.9	171.6	176.5	180.2	184.1	187.0	194.5	196.0	191.8	190.2	190.1	196.9
Durables	121.8	117.4	114.7	114.2	114.0	114.0	1142.0	114.0	113.9	113.9	113.5	113.2	113.1	113.7	114.3
Services	205.9	212.6	214.4	214.1	214.2	215.3	216.0	216.7	217.1	217.6	219.0	219.7	220.2	220.3	220.0
Rent of shelter[3]	194.5	199.2	200.6	200.5	200.6	201.4	202.0	203.2	203.7	203.9	204.4	205.1	205.5	205.5	205.9
Transporatation services	207.7	216.2	219.0	218.8	218.0	219.1	219.7	220.0	220.2	220.3	220.7	221.6	221.0	220.5	222.0
Other services	241.6	248.5	250.7	250.7	250.9	251.8	252.6	252.9	253.0	252.7	253.3	253.5	254.4	256.0	255.9
Special indexes:															
All items less food	175.8	179.7	180.4	179.7	179.2	180.2	181.4	182.6	183.2	184.4	185.0	184.5	184.5	185.1	186.2
All items less shelter	168.3	171.9	172.6	171.9	171.6	172.5	173.7	174.7	175.3	176.8	177.5	176.7	176.6	177.3	178.6
All items less medical care	171.1	174.8	175.6	175.0	174.7	175.6	176.6	177.6	178.2	179.4	180.0	179.6	179.6	180.0	181.1
Commodities less food	137.3	137.7	137.0	135.8	134.5	135.5	137.1	138.9	139.9	141.8	141.5	139.4	139.0	140.2	142.2
Nondurables less food	149.2	154.2	155.7	153.7	151.4	153.3	156.4	160.4	162.4	166.4	166.2	162.3	161.5	163.2	168.2
Nondurables less food and apparel	166.1	175.9	176.1	173.6	172.1	176.9	180.2	184.0	186.6	193.5	194.8	191.0	189.6	189.7	195.6
Nondurables	161.4	166.4	168.1	167.3	166.6	167.8	169.5	171.8	173.0	175.9	175.9	174.0	173.6	174.5	177.7
Services less rent of shelter[3]	193.1	201.3	203.2	202.7	202.9	204.1	204.9	204.9	205.2	205.8	208.2	208.9	209.3	209.5	208.6
Services less medical care services	198.9	205.2	206.9	206.5	206.6	207.6	208.2	208.8	209.2	209.7	211.1	211.8	212.2	212.3	212.0
Energy	120.9	135.9	136.3	132.4	131.1	136.9	140.2	143.0	146.0	154.5	159.9	156.2	155.1	154.2	157.8
All items less energy	183.6	186.1	187.0	187.0	186.9	187.2	187.9	188.7	189.0	189.3	189.3	189.3	189.5	190.2	191.0
All items less food and energy	185.6	187.9	188.6	188.4	188.0	188.3	189.1	190.1	190.4	190.4	190.3	190.3	190.5	191.4	192.1
Commodities less food and energy	144.4	141.1	140.3	139.7	141.1	138.2	139.0	140.0	140.1	139.9	139.0	138.0	138.0	139.5	140.5
Energy commodities	17.3	136.8	137.2	132.1	136.8	138.3	144.7	151.5	156.7	170.7	173.3	165.5	162.8	162.3	174.5
Services less energy	213.9	220.2	222.1	222.1	222.1	223.1	223.9	224.9	225.3	225.5	226.0	226.7	227.1	227.4	227.9

[1] Not seasonally adjusted.

[2] Indexes on a December 1997 = 100 base.

[3] Indexes on a December 1982 = 100 base.

[4] Indexes on a December 1988 = 100 base.

Dash indicates data not available.

NOTE: Index applied to a month as a whole, not to any specific date.

38. Consumer Price Index: U.S. city average and available local area data: all items

[1982–84 = 100, unless otherwise indicated]

	Pricing schedule[1]	All Urban Consumers 2004						Urban Wage Earners 2004					
		May	June	July	Aug.	Sept.	Oct	May	June	July	Aug.	Sept.	Oct.
U.S. city average	M	189.1	189.7	189.4	189.5	189.9	190.9	184.7	185.3	184.9	185.0	185.4	186.5
Region and area size[2]													
Northeast urban	M	199.9	201.1	201.0	201.0	201.2	202.5	196.4	197.5	197.3	197.2	197.7	199
Size A—More than 1,500,000	M	202.0	203.3	203.0	203.1	203.2	204.5	197.1	198.3	198.0	198.1	198.4	199.7
Size B/C—50,000 to 1,500,000[3]	M	118.3	118.7	119.2	118.9	119.2	120.1	118.4	118.8	119.1	118.7	119.2	120.1
Midwest urban[4]	M	182.9	183.3	183.2	183.3	183.6	184.5	177.8	178.2	178	178.2	178.6	179.5
Size A—More than 1,500,000	M	185.0	185.3	185.4	185.6	189.5	186.8	179.4	179.4	179.5	179.8	180.2	181.1
Size B/C—50,000 to 1,500,000[3]	M	116.4	116.8	116.3	116.5	116.8	117.4	115.5	116.0	115.5	115.7	115.9	116.6
Size D—Nonmetropolitan (less than 50,000)	M	176.0	176.9	177.1	176.3	176.4	177.1	173.2	174.1	173.7	173.4	173.7	174.4
South urban	M	182.0	182.9	182.6	182.6	182.8	183.7	178.9	179.7	179.3	179.4	179.7	180.6
Size A—More than 1,500,000	M	183.4	184.3	183.7	183.7	184.0	185.0	180.8	181.9	181.2	181.2	181.4	182.5
Size B/C—50,000 to 1,500,000[3]	M	116.4	117.0	116.9	116.9	116.9	117.4	114.8	115.3	115.2	115.3	115.4	115.9
Size D—Nonmetropolitan (less than 50,000)	M	179.4	180.5	180.1	180.0	181.2	182.8	179	180	179.4	179.5	180.7	182.3
West urban	M	193.4	193.3	192.9	193.0	193.8	195.0	188.6	188.6	188.0	188.0	188.8	190.0
Size A—More than 1,500,000	M	195.9	195.9	195.4	195.5	196.4	197.5	189.6	189.7	188.9	188.9	189.9	191.0
Size B/C—50,000 to 1,500,000[3]	M	118.2	117.9	117.9	118.1	118.4	119.2	117.8	117.6	117.4	117.6	117.8	118.7
Size classes:													
A[5]	M	172.9	173.4	173.1	173.2	173.6	174.6	171.2	171.7	171.3	171.4	171.8	172.8
B/C[3]	M	117.0	117.3	117.3	117.3	117.4	118.1	116.0	116.4	116.2	116.2	116.5	117.2
D	M	180.9	181.8	181.3	181.0	181.8	182.9	178.8	179.7	179.0	178.8	179.7	180.8
Selected local areas[6]													
Chicago–Gary–Kenosha, IL–IN–WI	M	188.7	189.1	189.2	190.2	190.0	190.8	182.2	182.5	182.4	183.2	183.1	184.0
Los Angeles–Riverside–Orange County, CA	M	193.3	193.7	193.4	193.1	194.5	196.3	186.8	187.4	186.8	186.5	187.8	189.8
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA	M	204.4	206.0	205.5	205.7	205.9	207.3	199.1	200.4	200.1	200.3	200.6	201.9
Boston–Brockton–Nashua, MA–NH–ME–CT	1	181.3	–	208.9	–	209.8	–	207.9	–	207.9	–	208.8	–
Cleveland–Akron, OH	1	179.1	–	181.7	–	183.8	–	172.6	–	172.8	–	174.8	–
Dallas–Ft Worth, TX	1	118.9	–	179.1	–	179.7	–	179.5	–	179.4	–	180.0	–
Washington–Baltimore, DC–MD–VA–WV[7]	1	118.9	–	120.2	–	120.8	–	118.4	–	119.7	–	120.4	–
Atlanta, GA	2	–	185.7	–	184.1	–	183.9	–	184.0	–	182.5	–	181.7
Detroit–Ann Arbor–Flint, MI	2	–	185.8	–	186.8	–	187.6	–	180.4	–	181.5	–	183.0
Houston–Galveston–Brazoria, TX	2	–	169.3	–	169.1	–	171.8	–	167.6	–	167.4	–	169.5
Miami–Ft. Lauderdale, FL	2	–	185.6	–	185.1	–	187	–	183.4	–	182.9	–	185.1
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD	2	–	198.0	–	199.1	–	200.2	–	197.3	–	198.0	–	199.8
San Francisco–Oakland–San Jose, CA	2	–	199.0	–	198.7	–	200.3	–	195.4	–	195.0	–	196.4
Seattle–Tacoma–Bremerton, WA	2	–	195.3	–	194.6	–	196.5	–	190.4	–	189.6	–	191.6

[1] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:

M—Every month.

1—January, March, May, July, September, and November.

2—February, April, June, August, October, and December.

[2] Regions defined as the four Census regions.

[3] Indexes on a December 1996 = 100 base.

[4] The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

[5] Indexes on a December 1986 = 100 base.

[6] In addition, the following metropolitan areas are published semiannually and appear in tables 34 and 39 of the January and July issues of the *CPI Detailed Report*: Anchorage, AK; Cincinnatti, OH–KY–IN; Kansas City, MO–KS; Milwaukee–Racine, WI; Minneapolis–St. Paul, MN–WI; Pittsburgh, PA; Port-land–Salem, OR–WA; St Louis, MO–IL; San Diego, CA; Tampa–St. Petersburg–Clearwater, FL.

[7] Indexes on a November 1996 = 100 base.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Each local index has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses. Index applies to a month as a whole, not to any specific date.

Dash indicates data not available.

39. Annual data: Consumer Price Index, U.S. city average, all items and major groups

[1982–84 = 100]

Series	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Consumer Price Index for All Urban Consumers:											
All items:											
Index	144.5	148.2	152.4	156.9	160.5	163.0	166.6	172.2	177.1	179.9	184.0
Percent change	3.0	2.6	2.8	3.0	2.3	1.6	2.2	3.4	2.8	1.6	2.3
Food and beverages:											
Index	141.6	144.9	148.9	153.7	157.7	161.1	164.6	168.4	173.6	176.8	180.5
Percent change	2.1	2.3	2.8	3.2	2.6	2.2	2.2	2.3	3.1	1.8	2.1
Housing:											
Index	141.2	144.8	148.5	152.8	156.8	160.4	163.9	169.6	176.4	180.3	184.8
Percent change	2.7	2.5	2.6	2.9	2.6	2.3	2.2	3.5	4.0	2.2	2.5
Apparel:											
Index	133.7	133.4	132.0	131.7	132.9	133.0	131.3	129.6	127.3	124.0	120.9
Percent change	1.4	–.2	–1.0	–.2	.9	.1	–1.3	–1.3	–1.8	–2.6	–2.5
Transportation:											
Index	130.4	134.3	139.1	143.0	144.3	141.6	144.4	153.3	154.3	152.9	157.6
Percent change	3.1	3.0	3.6	2.8	0.9	–1.9	2.0	6.2	0.7	–.9	3.1
Medical care:											
Index	201.4	211.0	220.5	228.2	234.6	242.1	250.6	260.8	272.8	285.6	297.1
Percent change	5.9	4.8	4.5	3.5	2.8	3.2	3.5	4.1	4.6	4.7	4.0
Other goods and services:											
Index	192.9	198.5	206.9	215.4	224.8	237.7	258.3	271.1	282.6	293.2	298.7
Percent change	5.2	2.9	4.2	4.1	4.4	5.7	8.7	5.0	4.2	3.8	1.9
Consumer Price Index for Urban Wage Earners and Clerical Workers:											
All items:											
Index	142.1	145.6	149.8	154.1	157.6	159.7	163.2	168.9	173.5	175.9	179.8
Percent change	2.8	2.5	2.9	2.9	2.3	1.3	2.2	3.5	2.7	1.4	2.2

40. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		2003			2004									
	2002	2003	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July[p]	Aug.[1]	Sept.[p]	Oct.[p]
Finished goods	138.9	143.3	145.5	144.5	144.5	145.4	145.3	146.3	147.3	148.9	148.7	148.7	148.6	148.7	151.9
Finished consumer goods	139.4	145.3	147.7	146.5	146.7	147.8	147.8	149.0	150.4	152.5	152.0	152.0	151.9	152.0	155.5
Finished consumer foods	140.1	145.9	151.0	150.1	150.3	148.1	148.4	150.7	152.7	155.5	155.0	152.1	152.2	152.2	154.7
Finshed consumer goods excluding foods	138.8	144.7	146.2	144.8	145.0	147.4	147.3	148.0	149.1	150.9	150.5	151.7	151.4	151.5	155.5
Nondurable goods less food	139.8	148.4	149.4	147.6	148.2	151.7	151.6	152.4	154.3	156.7	156.0	157.9	158.0	158.1	162.0
Durable goods	133.0	133.1	135.6	135.0	134.3	134.3	134.2	134.7	134.4	134.8	134.9	134.6	133.7	133.8	137.7
Capital equipment	139.1	139.5	140.8	140.5	140.2	140.5	140.2	140.5	140.6	140.8	141.1	141.2	141.1	141.3	143.5
Intermediate materials, supplies, and components	127.8	133.7	134.1	134.1	134.5	136.2	137.3	138.3	140.2	142.0	142.8	143.8	144.9	145.3	146.2
Materials and components for manufacturing	126.1	129.7	130.5	130.7	130.9	131.9	133.2	134.3	136.2	137.4	137.7	138.6	139.6	140.8	141.2
Materials for food manufacturing	123.2	134.4	141.8	141.6	140.7	138.4	139.3	141.7	146.6	152.2	152.0	147.9	145.4	144.2	144.2
Materials for nondurable manufacturing	129.2	137.2	137.5	137.2	137.9	140.2	141.0	141.4	143.5	144.5	145.9	147.2	149.5	152.1	153.5
Materials for durable manufacturing	124.7	127.9	129.5	130.5	131.2	132.9	137.3	140.7	144.3	146.9	145.8	149.4	151.0	153.3	152.8
Components for manufacturing	126.1	125.9	125.8	125.8	125.8	125.9	126.2	126.5	127.1	127.3	127.6	127.8	128.1	128.0	128.2
Materials and components for construction	151.3	153.6	155.2	155.6	155.6	156.2	159.0	161.9	164.7	166.9	166.9	167.8	170.0	171.1	170.7
Processed fuels and lubricants	96.3	112.6	111.5	110.3	111.7	116.8	116.8	116.5	118.4	122.3	124.9	126.5	128.5	127.1	130.4
Containers	152.1	153.7	153.2	153.4	153.5	153.9	153.7	154.1	154.9	156.7	158.9	159.5	161.4	162.5	164.1
Supplies	138.9	141.5	141.9	142.6	142.8	143.2	143.8	144.8	146.4	147.2	147.3	148.1	147.5	147.7	147.8
Crude materials for further processing	108.1	135.3	138.3	137.0	141.1	147.8	150.1	152.9	155.7	161.8	163.0	162.0	160.7	153.8	159.7
Foodstuffs and feedstuffs	99.5	113.5	128.1	125.7	124.7	117.1	122.2	131.7	135.4	141.1	137.4	131.0	124.7	121.7	119.9
Crude nonfood materials	111.4	148.2	141.1	141.4	149.5	167.3	167.3	164.8	166.6	172.9	178.0	181.3	183.9	174.1	186.1
Special groupings:															
Finished goods, excluding foods	138.3	142.4	143.8	142.8	142.8	144.5	144.3	144.9	145.7	147.0	146.8	147.6	147.4	147.5	150.9
Finished energy goods	88.8	102.0	103.2	100.4	101.0	106.0	105.7	107.0	109.5	113.6	112.5	115.1	115.1	114.9	120.9
Finished goods less energy	147.3	149.0	151.4	151.0	150.9	150.6	150.5	151.3	151.9	152.7	152.7	152.1	151.9	152.1	154.4
Finished consumer goods less energy	150.8	153.1	156.1	155.5	155.5	154.9	155.0	156.1	156.9	158.0	157.9	156.8	156.6	156.8	159.1
Finished goods less food and energy	150.2	150.5	152.0	151.7	151.4	151.8	151.7	152.0	152.1	152.2	152.3	152.4	152.2	152.5	154.7
Finished consumer goods less food and energy	157.6	157.9	159.5	159.2	159.0	159.4	159.4	159.7	159.8	159.9	160.0	160.0	159.7	160.0	162.2
Consumer nondurable goods less food and energy	177.5	177.9	178.6	178.5	178.9	179.7	179.8	179.8	180.5	180.2	180.2	180.5	180.8	181.3	181.6
Intermediate materials less foods and feeds	128.5	134.2	134.4	134.2	134.7	136.5	137.6	138.4	140.2	141.9	142.8	144.0	145.4	146.0	147.0
Intermediate foods and feeds	115.5	125.9	131.9	134.8	134.1	132.2	133.7	137.0	143.2	147.7	144.9	143.2	136.0	133.8	131.2
Intermediate energy goods	95.9	111.9	110.7	109.5	110.9	115.8	115.8	115.6	117.3	121.1	123.7	125.4	127.1	126.0	129.5
Intermediate goods less energy	134.5	137.7	138.5	138.8	139.0	139.8	141.1	142.4	144.4	145.7	146.0	146.8	147.7	148.5	148.7
Intermediate materials less foods and energy	135.8	138.5	139.0	139.2	139.5	140.4	141.7	142.9	144.6	145.7	146.2	147.1	148.5	149.5	149.9
Crude energy materials	102.0	147.2	134.3	132.5	141.8	163.5	158.9	153.0	158.8	172.1	180.0	178.3	178.1	166.3	179.5
Crude materials less energy	108.7	123.4	135.9	135.5	136.2	133.2	139.8	148.0	148.7	150.1	147.0	146.5	144.5	140.9	142.0
Crude nonfood materials less energy	135.7	152.5	159.5	164.8	170.1	179.3	189.9	195.2	187.6	177.9	176.3	191.6	200.9	195.4	204.6

41. Producer Price Indexes for the net output of major industry groups

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2004									
		Jan.	Feb.	Mar.	Apr.	May	June	July[P]	Aug.[P]	Sept.[P]	Oct.[P]
–	**Total mining industries (December 1984=100)**	144.6	140.3	136.6	140.9	149.5	155.5	155.2	157.2	148.8	158.9
211	Oil and gas extraction(December 1985=100)	181.1	172.5	165.4	171.7	188.1	198.0	196.9	198.7	182.8	199.9
212	Mining, except oil and gas	103.3	105.2	105.9	108.5	107.3	108.1	108.5	110.2	111.6	112.3
213	Mining support activities	101.2	100.8	100.8	101.0	101.3	102.2	103.5	105.5	107.5	110.1
–	**Total manufacturing industries (December 1984=100)**	138.9	139.3	140.3	141.8	143.3	142.9	143.4	143.7	144.1	146.5
311	Food manufacturing (December 1984=100)	139.3	140.4	142.4	146.1	149.1	148.6	146.7	144.4	143.3	142.9
312	Beverage and tobacco manufacturing	101.4	101.2	100.7	101.5	100.2	101.2	100.9	101.4	101.0	101.6
313	Textile mills	100.4	100.3	100.2	100.7	101.1	101.3	101.6	101.6	101.2	101.7
315	Apparel manufacturing	99.9	99.7	99.8	99.9	100.0	99.8	99.6	99.6	99.9	100.1
316	Leather and allied product manufacturing (December 1984=100)	143.3	143.6	143.8	143.5	143.4	143.5	143.6	143.7	143.5	143.7
321	Wood products manufacturing	99.3	102.7	105.9	108.1	110.2	108.3	106.7	109.9	110.8	107.4
322	Paper manufacturing	99.3	99.4	99.5	100.1	101.1	102.3	103.4	104.2	104.9	105.7
323	Printing and related support activities	100.2	100.2	100.4	100.8	100.8	101.0	101.3	101.5	102.0	101.9
324	Petroleum and coal products manufacturing (December 1984=100)	131.5	130.7	134.3	141.9	152.0	144.1	152.0	155.6	158.9	176.7
325	Chemical manufacturing (December 1984=100)	167.0	167.9	168.8	169.7	170.3	171.6	172.0	173.2	175.6	177.1
326	Plastics and rubber products manufacturing (December 1984=100)	128.9	129.4	129.6	130.0	130.4	130.8	131.4	131.8	132.5	134.3
331	Primary metal manufacturing (December 1984=100)	124.0	128.5	132.3	138.4	142.2	142.3	147.6	149.1	150.9	152.0
332	Fabricated metal product manufacturing (December 1984=100)	134.6	135.7	137.5	139.4	140.8	141.9	142.6	143.7	144.2	144.7
333	Machinery manufacturing	100.3	100.6	100.9	101.3	101.6	101.8	102.1	102.2	102.5	103.1
334	Computer and electronic products manufacturing	99.8	99.5	99.3	99.5	99.3	99.1	99.0	98.9	98.9	98.9
335	Electrical equipment, appliance, and components manufacturing	100.2	100.7	101.8	102.7	103.3	103.5	103.7	103.8	104.1	104.4
336	Transportation equipment manufacturing	100.2	100.1	100.4	100.2	100.4	100.6	100.4	99.9	99.9	103.2
337	Furniture and related product manufacturing(December 1984=100)	147.4	148.7	149.0	149.7	151.4	151.7	152.1	152.7	152.7	153.5
339	Miscellaneous manufacturing	100.5	100.9	100.8	101.0	100.9	101.2	101.3	101.0	101.6	101.6
	Retail trade										
441	Motor vehicle and parts dealers	101.6	101.7	103.2	103.8	103.7	103.7	104.0	103.4	103.5	104.2
442	Furniture and home furnishings stores	99.5	100.8	101.8	102.0	101.4	102.8	102.5	103.0	103.6	104.0
443	Electronics and appliance stores	101.4	99.7	99.9	101.2	101.2	98.8	99.9	98.8	101.6	100.6
446	Health and personal care stores	99.6	99.9	96.9	97.4	97.5	98.7	99.5	101.5	107.3	106.8
447	Gasoline stations (June 2001=100)	45.5	46.6	55.4	56.6	53.2	59.3	46.0	47.0	45.8	42.0
454	Nonstore retailers	102.9	105.4	113.2	108.6	107.0	108.7	106.1	103.6	107.5	103.1
	Transportation and warehousing										
481	Air transportation (December 1992=100)	163.3	163.6	162.0	162.3	162.2	162.8	163.4	165.1	160.6	161.6
483	Water transportation	99.0	98.9	99.4	100.1	100.3	100.3	100.4	100.5	103.0	103.6
491	Postal service (June 1989=100)	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0
	Utilities										
221	Utilities	101.7	102.5	101.2	101.8	103.1	106.9	107.1	107.5	105.1	104.0
	Health care and social assistance										
6211	Office of physicians (December 1996=100)	114.1	114.3	114.3	114.4	114.4	114.3	114.5	114.5	114.5	114.4
6215	Medical and diagnostic laboratories	100.3	99.8	99.8	99.8	100.0	100.0	100.0	100.0	100.1	100.1
6216	Home health care services (December 1996=100)	119.5	119.6	119.6	119.7	119.7	119.7	119.9	119.8	119.7	119.9
622	Hospitals (December 1992=100)	139.5	140.1	140.3	140.7	140.8	140.9	142.3	142.1	142.4	142.9
6231	Nursing care facilities	101.2	101.4	101.6	101.9	102.0	102.0	102.1	102.9	103.1	103.5
62321	Residential mental retardation facilities	100.1	99.9	99.9	99.9	100.5	100.5	99.9	100.6	100.6	100.9
	Other services industries										
511	Publishing industries, except Internet	100.9	101.3	101.3	101.4	101.3	101.4	101.8	101.2	101.0	101.5
515	Broadcasting, except Internet	97.8	99.1	100.3	101.6	103.1	102.7	100.5	100.1	101.9	103.2
517	Telecommunications	100.4	100.0	100.2	100.1	99.9	99.9	99.7	100.0	99.5	99.2
5182	Data processing and related services	99.9	98.9	98.4	98.5	98.9	99.0	99.0	99.0	98.8	98.9
523	Security, commodity contracts, and like activity	101.8	102.0	101.7	102.3	102.4	102.7	102.5	102.3	103.2	104.0
53112	Lessors or nonresidental buildings (except miniwarehouse)	99.1	99.4	99.6	101.0	102.6	102.1	103.2	105.2	104.7	104.1
5312	Offices of real estate agents and brokers	100.0	100.2	100.7	100.8	100.8	101.0	101.1	101.1	101.1	99.5
5313	Real estate support activities	100.1	100.6	101.1	101.3	101.9	98.5	101.5	102.7	100.7	98.5
5321	Automotive equipment rental and leasing (June 2001=100)	107.9	109.8	107.4	106.0	104.5	105.6	109.7	111.0	108.2	108.0
5411	Legal services (December 1996=100)	131.4	131.7	131.7	131.8	131.8	131.8	132.0	131.9	132.3	132.5
541211	Offices of certified public accountants	100.8	100.7	100.8	101.1	101.2	101.1	101.3	101.6	101.8	102.0
5413	Architectural, engineering, and related services (December 1996=100)	125.7	125.9	126.5	126.6	126.5	126.6	126.9	126.9	127.2	127.4
54181	Advertising agencies	99.6	99.6	99.8	99.9	99.9	99.9	100.3	100.7	100.4	100.4
5613	Employment services (December 1996=100)	112.1	112.5	113.2	113.1	113.4	113.8	114.0	114.8	114.8	115.3
56151	Travel agencies	99.0	98.7	98.7	98.7	98.7	97.4	96.1	95.4	94.8	96.9
56172	Janitorial services	100.3	100.3	100.4	100.5	100.6	101.0	100.8	101.6	100.9	101.5
5621	Waste collection	100.8	101.3	100.8	101.3	101.5	101.5	101.3	101.3	101.3	101.4
721	Accommodation (December 1996=100)	122.2	123.6	124.9	124.8	124.4	125.6	128.6	128.6	125.4	125.4

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system.

42. Annual data: Producer Price Indexes, by stage of processing

[1982 = 100]

Index	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Finished goods											
Total	124.7	125.5	127.9	131.3	131.8	130.7	133.0	138.0	140.7	138.9	143.3
Foods	125.7	126.8	129.0	133.6	134.5	134.3	135.1	137.2	141.3	140.1	146.0
Energy	78.0	77.0	78.1	83.2	83.4	75.1	78.8	94.1	96.8	88.8	102.0
Other	135.8	137.1	140.0	142.0	142.4	143.7	146.1	148.0	150.0	150.2	150.5
Intermediate materials, supplies, and components											
Total	116.2	118.5	124.9	125.7	125.6	123.0	123.2	129.2	129.7	127.8	133.7
Foods	115.6	118.5	119.5	125.3	123.2	123.2	120.8	119.2	124.3	123.3	134.4
Energy	84.6	83.0	84.1	89.8	89.0	80.8	84.3	101.7	104.1	95.9	111.9
Other	123.8	127.1	135.2	134.0	134.2	133.5	133.1	136.6	136.4	135.8	138.5
Crude materials for further processing											
Total	102.4	101.8	102.7	113.8	111.1	96.8	98.2	120.6	121.3	108.1	135.3
Foods	108.4	106.5	105.8	121.5	112.2	103.9	98.7	100.2	106.2	99.5	113.5
Energy	76.7	72.1	69.4	85.0	87.3	68.6	78.5	122.1	122.8	102.0	147.5
Other	94.1	97.0	105.8	105.7	103.5	84.5	91.1	118.0	101.8	101.0	116.8

43. U.S. export price indexes by Standard International Trade Classification

[2000 = 100]

SITC Rev. 3	Industry	2003			2004									
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
0	**Food and live animals**	112.2	115.2	116.5	117.0	119.9	122.7	126.1	126.7	123.9	119.8	116.5	117.8	118.5
01	Meat and meat preparations	123.5	125.6	123.0	122.8	125.0	127.1	127.6	127.7	127.3	123.0	126.1	124.6	125.9
04	Cereals and cereal preparations	119.4	125.6	130.8	131.6	135.2	139.6	147.7	146.0	141.2	128.0	120.6	122.0	115.5
05	Vegetables, fruit, and nuts, prepared fresh or dry	103.2	102.8	103.2	103.1	108.4	110.1	109.5	113.3	111.1	110.0	113.2	120.2	131.2
2	**Crude materials, inedible, except fuels**	111.2	116.3	116.9	120.2	122.3	129.0	132.8	132.5	125.7	132.1	117.9	119.1	117.8
22	Oilseeds and oleaginous fruits	136.7	150.9	152.5	157.2	160.9	181.6	197.1	199.0	168.5	184.5	117.4	125.1	109.1
24	Cork and wood	92.0	92.5	93.7	94.5	95.6	96.5	97.6	98.2	98.3	98.9	98.8	99.1	98.6
25	Pulp and waste paper	90.8	91.9	91.7	91.7	92.5	94.2	98.8	100.4	100.8	100.1	99.5	98.7	98.6
26	Textile fibers and their waste	121.4	128.5	121.2	123.7	122.2	121.9	115.9	114.9	108.7	102.9	101.1	102.1	100.1
28	Metalliferous ores and metal scrap	121.1	129.6	136.6	148.9	156.8	171.4	176.2	170.6	167.5	190.2	183.0	177.2	187.9
3	**Mineral fuels, lubricants, and related products**	108.2	106.3	110.7	120.5	119.3	123.0	123.2	135.1	131.8	137.5	139.3	141.2	156.1
32	Coal, coke, and briquettes	111.6	111.6	112.9	–	–	–	–	–	–	–	–	–	–
33	Petroleum, petroleum products, and related materials	104.1	101.2	106.2	116.8	114.7	120.1	119.8	135.0	129.7	134.5	136.2	138.0	156.8
5	**Chemicals and related products, n.e.s.**	100.7	100.9	101.4	102.9	104.0	104.9	105.5	105.6	105.8	107.0	108.7	109.6	111.9
54	Medicinal and pharmaceutical products	105.9	106.5	105.8	105.4	105.3	105.5	105.7	105.7	105.8	107.9	108.1	108.0	107.8
55	Essential oils; polishing and cleaning preparations	98.9	99.4	100.1	104.3	104.2	104.3	104.1	104.4	104.3	104.1	105.0	105.5	106.0
57	Plastics in primary forms	95.5	95.8	96.5	98.3	100.9	102.1	102.2	102.9	103.2	104.8	107.5	109.6	113.6
58	Plastics in nonprimary forms	98.3	97.1	97.2	96.8	97.2	97.4	96.9	96.7	96.5	97.2	97.2	97.5	97.9
59	Chemical materials and products, n.e.s.	102.4	102.5	102.6	105.0	105.2	104.8	104.8	104.8	104.9	104.6	106.3	105.5	105.1
6	**Manufactured goods classified chiefly by materials**	100.3	100.7	100.8	101.7	103.0	104.1	105.6	106.6	107.0	108.5	109.6	110.5	111.1
62	Rubber manufactures, n.e.s.	109.2	109.5	109.9	110.4	110.9	110.4	110.9	110.8	111.2	111.8	112.0	111.2	111.5
64	Paper, paperboard, and articles of paper, pulp, and paperboard	97.4	97.9	97.6	97.9	97.8	97.9	98.7	99.0	99.2	101.2	101.9	102.7	103.8
66	Nonmetallic mineral manufactures, n.e.s.	99.5	99.7	99.8	99.7	99.6	99.7	99.7	99.5	99.9	99.9	100.2	100.5	100.5
68	Nonferrous metals	81.9	83.4	84.5	85.9	90.9	94.1	98.1	97.6	95.4	95.4	96.7	98.5	99.2
7	**Machinery and transport equipment**	97.7	97.7	97.8	97.9	98.1	98.2	98.4	98.4	98.2	98.2	98.2	98.3	98.6
71	Power generating machinery and equipment	107.9	108.5	108.7	109.3	109.4	109.4	108.7	108.7	108.7	108.9	109.0	109.0	109.6
72	Machinery specialized for particular industries	103.1	103.3	103.4	103.9	104.0	104.2	105.1	105.4	105.4	105.7	105.9	106.1	107.2
74	General industrial machines and parts, n.e.s., and machine parts	102.6	102.8	102.8	103.3	103.5	104.0	104.5	104.8	104.9	105.2	105.3	105.3	106.3
75	Computer equipment and office machines	87.9	88.0	88.6	87.7	88.2	88.4	88.8	88.6	87.2	86.6	86.4	86.2	85.9
76	Telecommunications and sound recording and reproducing apparatus and equipment	92.8	92.2	92.0	92.6	92.5	92.4	92.2	92.0	91.8	91.5	90.7	90.7	90.5
77	Electrical machinery and equipment	88.6	88.2	88.1	88.0	88.3	88.6	88.5	88.6	88.2	88.3	88.2	88.2	88.6
78	Road vehicles	101.5	101.6	101.5	101.7	101.9	101.9	102.3	102.3	102.4	102.5	102.5	102.8	102.8
87	**Professional, scientific, and controlling instruments and apparatus**	102.1	102.3	102.3	102.2	102.3	102.3	102.2	102.1	102.0	101.7	101.9	101.8	102.2

44. U.S. import price indexes by Standard International Trade Classification

[2000 = 100]

SITC Rev. 3	Industry	2003			2004									
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
0	**Food and live animals**	100.3	100.0	101.0	102.2	104.7	105.4	106.4	106.1	106.9	107.4	107.4	109.2	109.9
01	Meat and meat preparations	115.2	117.2	120.4	117.7	118.0	120.4	121.7	124.4	128.9	133.7	134.2	135.1	133.9
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	79.8	79.3	79.2	78.2	80.0	83.3	85.1	84.1	84.1	86.1	86.9	86.1	85.4
05	Vegetables, fruit, and nuts, prepared fresh or dry	106.4	108.9	109.4	112.3	115.7	111.3	109.5	106.1	105.9	102.1	100.6	109.2	110.2
07	Coffee, tea, cocoa, spices, and manufactures thereof	95.5	93.1	96.0	100.1	101.9	101.7	103.6	102.4	107.0	102.7	103.3	105.6	104.5
1	**Beverages and tobacco**	104.3	104.4	104.4	104.7	105.0	105.3	105.3	105.4	105.3	105.9	106.1	106.2	106.5
11	Beverages	104.2	104.2	104.3	104.9	105.2	105.5	105.5	105.7	105.6	106.4	106.6	106.7	106.9
2	**Crude materials, inedible, except fuels**	104.2	104.5	107.9	109.5	114.1	120.0	122.9	127.3	125.8	125.7	134.1	135.1	124.9
24	Cork and wood	106.2	103.2	108.0	108.9	115.7	123.3	127.8	139.0	136.1	132.1	149.0	151.1	125.8
25	Pulp and waste paper	90.8	91.9	92.8	93.3	91.9	95.4	100.8	103.4	106.5	108.0	107.7	105.5	99.8
28	Metalliferous ores and metal scrap	104.3	108.7	115.3	124.2	134.6	148.0	148.2	143.5	140.4	145.3	160.8	162.4	165.1
29	Crude animal and vegetable materials, n.e.s.	95.1	94.8	99.6	98.9	99.5	99.7	99.3	102.1	98.0	101.2	97.6	98.7	96.9
3	**Mineral fuels, lubricants, and related products**	101.3	103.3	108.2	117.3	117.7	120.8	121.1	131.6	131.5	133.9	144.1	146.1	160.9
33	Petroleum, petroleum products, and related materials	100.1	102.3	106.9	114.0	114.5	120.0	120.3	131.5	130.0	133.0	144.6	148.7	165.5
34	Gas, natural and manufactured	106.2	106.6	113.9	138.0	137.1	122.9	123.3	129.5	140.0	134.8	136.3	122.0	121.1
5	**Chemicals and related products, n.e.s.**	100.2	100.8	101.1	103.0	103.4	103.8	103.5	103.5	103.8	104.6	105.1	105.7	106.3
52	Inorganic chemicals	108.8	111.9	114.0	119.3	120.6	120.5	115.9	117.5	119.8	122.2	124.0	124.4	125.1
53	Dying, tanning, and coloring materials	98.1	99.0	99.6	99.9	99.7	99.5	100.6	100.8	100.3	98.3	98.4	98.4	98.5
54	Medicinal and pharmaceutical products	102.3	103.4	103.4	107.2	107.7	108.1	107.7	107.3	107.1	107.3	107.0	106.5	106.4
55	Essential oils; polishing and cleaning preparations	91.2	91.6	91.6	92.7	93.3	93.7	93.5	93.4	93.5	93.5	96.4	93.4	93.3
57	Plastics in primary forms	105.6	105.6	105.5	104.4	105.2	106.9	105.5	105.8	104.6	107.8	108.4	109.2	109.7
58	Plastics in nonprimary forms	101.7	101.7	101.8	102.1	102.4	102.9	102.9	102.9	102.3	103.0	103.3	103.6	104.0
59	Chemical materials and products, n.e.s.	92.3	93.1	93.3	94.3	94.9	95.8	95.4	95.1	95.2	94.7	94.1	94.5	94.9
6	**Manufactured goods classified chiefly by materials**	96.5	97.4	97.8	98.9	101.4	103.6	105.6	106.9	106.1	106.1	107.5	108.7	108.6
62	Rubber manufactures, n.e.s.	98.5	98.6	98.8	99.0	99.2	99.7	99.9	100.0	100.5	100.5	100.8	100.8	101.0
64	Paper, paperboard, and articles of paper, pulp, and paperboard	94.7	94.2	93.7	94.1	94.5	95.0	94.8	95.5	95.5	96.4	96.8	97.9	98.6
66	Nonmetallic mineral manufactures, n.e.s.	97.9	98.1	98.1	98.5	98.9	99.0	99.3	99.4	99.4	99.3	100.2	100.3	100.6
68	Nonferrous metals	82.0	85.1	87.7	92.3	97.0	102.6	105.8	106.1	101.6	102.3	105.2	105.7	106.5
69	Manufactures of metals, n.e.s.	98.7	99.1	99.5	99.7	100.3	101.1	102.3	102.4	102.4	102.7	103.3	103.9	104.1
7	**Machinery and transport equipment**	95.3	95.4	95.3	95.4	95.5	95.5	95.2	95.2	95.1	95.0	95.0	95.0	95.0
72	Machinery specialized for particular industries	102.4	103.3	103.6	104.9	106.4	106.7	106.5	106.7	106.6	107.2	107.6	107.5	107.8
74	General industrial machines and parts, n.e.s., and machine parts	100.4	100.9	101.2	101.8	102.5	103.3	103.5	103.6	103.5	104.0	104.2	104.4	104.6
75	Computer equipment and office machines	78.6	78.5	78.2	78.0	78.0	77.7	76.5	76.4	75.5	74.9	74.3	74.0	73.2
76	Telecommunications and sound recording and reproducing apparatus and equipment	87.7	87.5	86.7	86.4	85.4	85.1	84.9	84.9	84.7	84.3	84.0	83.8	83.5
77	Electrical machinery and equipment	95.9	96.0	95.3	95.4	95.7	95.6	94.9	94.8	94.7	94.6	94.7	94.6	94.6
78	Road vehicles	101.3	101.4	101.6	101.9	102.0	102.0	102.2	102.3	102.4	102.6	102.8	103.0	103.5
85	Footwear	100.0	100.1	100.1	100.5	100.5	100.6	100.6	100.6	100.4	100.4	100.1	100.5	100.5
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	99.3	99.8	99.9	99.9	100.3	100.0	99.4	99.3	99.0	98.2	98.2	98.2	98.2

45. U.S. export price indexes by end-use category

[2000 = 100]

Category	2003			2004									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
ALL COMMODITIES	100.0	100.5	100.8	101.5	102.2	103.0	103.7	104.1	103.4	103.9	103.4	103.8	104.5
Foods, feeds, and beverages	117.2	121.4	122.4	123.1	125.6	130.5	134.8	135.6	129.1	128.0	116.5	118.8	117.5
Agricultural foods, feeds, and beverages	118.4	122.8	123.8	124.6	127.2	132.4	137.0	138.0	131.1	129.9	117.0	119.2	117.5
Nonagricultural (fish, beverages) food products	105.6	107.5	108.5	109.5	110.7	112.1	113.4	112.7	110.7	110.1	111.6	114.4	116.8
Industrial supplies and materials	101.0	101.7	102.5	105.1	106.4	108.1	109.1	110.2	109.9	112.0	113.1	113.8	116.5
Agricultural industrial supplies and materials	113.3	119.0	117.5	118.6	116.6	117.2	114.8	113.7	110.7	109.0	108.4	109.4	108.7
Fuels and lubricants	97.5	96.4	99.0	106.1	106.5	108.9	109.6	117.5	114.9	118.6	120.4	120.8	131.1
Nonagricultural supplies and materials, excluding fuel and building materials	101.1	101.7	102.5	104.7	106.4	108.1	109.4	109.9	110.0	112.4	113.5	114.3	116.4
Selected building materials	98.8	99.1	99.5	98.7	100.9	102.3	103.4	103.9	103.4	102.8	103.3	104.0	103.8
Capital goods	97.3	97.3	97.5	97.5	97.8	98.0	98.1	98.1	97.8	97.8	97.8	97.9	98.3
Electric and electrical generating equipment	101.7	101.7	101.7	102.0	101.9	102.0	101.7	101.7	102.0	102.2	102.3	102.3	103.1
Nonelectrical machinery	93.9	93.9	94.1	93.9	94.3	94.5	94.6	94.6	94.1	94.0	94.0	94.0	94.4
Automotive vehicles, parts, and engines	101.9	101.9	101.8	101.9	102.0	101.9	102.2	102.3	102.3	102.4	102.6	102.6	102.8
Consumer goods, excluding automotive	99.8	100.0	99.9	100.2	100.1	100.2	100.4	100.5	100.4	100.9	101.1	101.0	100.9
Nondurables, manufactured	99.0	99.4	99.2	99.9	99.9	99.9	100.1	100.1	100.0	100.8	101.0	101.0	101.0
Durables, manufactured	100.3	100.3	100.3	100.1	100.0	100.1	100.5	100.6	100.7	100.8	101.0	100.9	100.6
Agricultural commodities	117.5	122.2	122.7	123.5	125.3	129.7	133.0	133.7	127.4	126.1	115.5	117.5	116.0
Nonagricultural commodities	98.7	98.8	99.1	99.8	100.4	100.9	101.4	101.7	101.5	102.2	102.6	102.8	103.8

46. U.S. import price indexes by end-use category

[2000 = 100]

Category	2003			2004									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
ALL COMMODITIES	96.3	96.8	97.5	99.0	99.4	100.2	100.4	101.9	101.7	102.1	103.5	104.0	105.6
Foods, feeds, and beverages	101.9	102.4	103.2	103.7	105.3	105.9	107.2	106.8	106.9	107.5	107.3	108.7	108.0
Agricultural foods, feeds, and beverages	109.0	109.7	110.9	112.0	113.4	113.0	114.2	114.0	114.3	114.5	114.0	116.4	115.6
Nonagricultural (fish, beverages) food products	86.3	86.0	86.0	85.1	87.2	90.1	91.7	90.6	90.3	91.8	92.3	91.5	90.9
Industrial supplies and materials	99.5	100.7	103.6	108.5	110.0	112.7	113.9	119.7	119.3	120.6	126.4	128.1	134.4
Fuels and lubricants	100.1	102.0	107.2	116.5	117.0	120.2	120.6	131.0	130.9	133.2	143.2	145.4	160.2
Petroleum and petroleum products	98.8	100.9	106.0	113.7	114.3	120.1	119.9	131.2	129.7	132.7	144.2	148.3	165.6
Paper and paper base stocks	94.0	93.9	93.9	94.1	94.2	95.6	96.8	98.2	99.0	100.0	100.4	101.2	100.8
Materials associated with nondurable supplies and materials	103.4	104.2	104.4	104.7	104.8	105.4	105.1	105.4	106.0	106.5	107.7	107.9	108.5
Selected building materials	109.5	108.1	108.0	106.8	113.7	118.4	120.2	123.6	120.5	117.6	124.0	125.6	115.2
Unfinished metals associated with durable goods	94.4	96.4	99.2	104.5	109.5	114.9	121.7	126.2	124.4	126.1	129.2	132.3	133.4
Nonmetals associated with durable goods	97.7	98.1	98.2	98.5	99.2	99.3	99.3	99.1	98.7	98.5	98.5	98.8	98.6
Capital goods	93.0	93.3	92.9	93.1	93.1	93.1	92.6	92.6	92.2	92.2	92.1	92.0	91.8
Electric and electrical generating equipment	96.2	96.5	96.8	97.4	97.9	97.8	97.2	97.1	97.0	97.5	97.5	97.4	97.2
Nonelectrical machinery	91.4	91.6	91.1	91.2	91.2	91.2	90.6	90.5	90.1	90.0	89.9	89.8	89.6
Automotive vehicles, parts, and engines	101.2	101.2	101.4	101.6	101.7	101.8	102.0	102.0	102.2	102.3	102.5	102.6	103.0
Consumer goods, excluding automotive	97.9	98.1	98.1	98.6	98.7	98.7	98.6	98.5	98.5	98.5	98.4	98.4	98.4
Nondurables, manufactured	99.8	100.0	100.1	101.1	101.2	101.3	101.1	101.0	100.9	101.0	100.9	100.8	100.8
Durables, manufactured	96.1	96.2	96.2	96.3	96.3	96.3	96.3	96.0	96.1	95.9	95.9	95.9	96.0
Nonmanufactured consumer goods	95.8	95.8	96.2	95.9	96.2	96.4	96.4	97.3	96.8	97.4	97.9	97.9	97.9

47. U.S. international price indexes for selected categories of services

[2000 = 100, unless indicated otherwise]

Category	2002		2003				2004		
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Air freight (inbound)	100.3	105.9	108.8	109.4	112.5	112.9	116.2	116.6	118.7
Air freight (outbound)	97.3	95.4	97.2	95.4	95.5	94.9	96.1	99.0	100.7
Inbound air passenger fares (Dec. 2003 = 100)	–	–	–	–	–	100.0	105.1	106.1	110.1
Outbound air passenger fares (Dec. 2003 = 100))	–	–	–	–	–	100.0	99.3	114.2	114.2
Ocean liner freight (inbound)	93.5	93.3	94.0	116.1	116.2	117.7	119.1	121.1	120.3

NOTE: Dash indicates data not available.

48. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

[1992 = 100]

Item	2001		2002				2003				2004		
	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
Business													
Output per hour of all persons	118.8	120.9	122.7	123.2	124.7	125.0	126.2	128.6	131.2	132.0	133.3	134.2	135.0
Compensation per hour	140.4	141.5	143.2	144.4	145.0	145.5	147.4	149.6	151.7	153.2	154.2	155.9	157.3
Real compensation per hour	113.2	114.2	115.2	115.2	115.0	114.8	115.3	116.8	117.7	118.7	118.4	118.3	118.9
Unit labor costs	118.2	117.0	116.7	117.2	116.3	116.3	116.8	116.4	115.6	116.0	115.7	116.1	116.6
Unit nonlabor payments	110.2	113.1	113.4	113.6	115.7	116.8	117.7	119.0	120.8	120.7	122.9	124.8	124.8
Implicit price deflator	115.2	115.6	115.5	115.9	116.1	116.5	117.1	117.3	117.5	117.8	118.4	119.4	119.6
Nonfarm business													
Output per hour of all persons	118.5	120.4	122.4	122.8	124.1	124.6	125.8	127.8	130.6	131.7	132.8	134.1	134.7
Compensation per hour	139.6	140.7	142.6	143.8	144.3	144.7	146.6	148.7	150.9	152.5	153.3	155.2	156.5
Real compensation per hour	112.5	113.5	114.7	114.7	114.4	114.3	114.7	116.1	117.1	118.2	117.7	117.8	118.3
Unit labor costs	117.8	116.8	116.4	117.1	116.2	116.1	116.6	116.3	115.5	115.9	115.4	115.7	116.2
Unit nonlabor payments	111.9	114.7	115.1	115.4	117.7	118.9	119.6	120.4	122.3	121.9	124.3	126.1	126.6
Implicit price deflator	115.6	116.0	116.0	116.5	116.8	117.2	117.7	117.8	118.0	118.1	118.7	119.6	120.0
Nonfinancial corporations													
Output per hour of all employees	123.0	123.9	126.3	127.9	129.2	130.2	131.3	134.1	137.2	138.9	138.9	140.1	141.5
Compensation per hour	137.9	139.3	139.9	141.3	142.1	142.9	144.1	146.3	148.5	150.0	150.9	152.9	154.4
Real compensation per hour	111.1	112.5	112.6	112.7	112.7	112.8	112.7	114.2	115.3	116.2	115.9	116.1	116.7
Total unit costs	112.8	113.4	111.6	111.2	110.7	110.4	110.7	109.7	109.0	108.7	108.8	109.4	109.4
Unit labor costs	112.1	112.4	1,110.8	110.5	110.0	109.7	109.8	109.1	108.2	108.0	108.6	109.2	109.1
Unit nonlabor costs	114.7	116.2	114.0	112.9	112.7	112.3	113.2	111.4	111.1	110.5	109.5	109.9	110.3
Unit profits	79.4	75.8	89.1	94.7	95.7	101.8	99.2	111.0	118.7	123.2	128.1	134.3	134.6
Unit nonlabor payments	105.2	105.4	107.4	108.1	108.2	109.5	109.4	111.3	113.1	113.9	114.5	116.4	116.8
Implicit price deflator	109.8	110.1	109.6	109.7	109.4	109.6	109.7	109.8	109.9	110.0	110.6	111.6	111.7
Manufacturing													
Output per hour of all persons	136.9	140.4	143.8	145.7	147.8	148.8	151.0	152.1	155.9	157.2	158.3	161.5	163.2
Compensation per hour	137.3	139.4	144.1	147.0	148.6	149.9	155.7	158.5	161.6	163.9	162.2	163.7	165.5
Real compensation per hour	110.6	112.5	115.9	117.2	117.8	118.3	121.8	123.8	125.4	127.0	124.5	124.3	125.0
Unit labor costs	100.3	99.3	100.2	100.8	100.5	100.7	103.1	104.2	103.6	104.2	102.5	101.4	101.4

49. Annual indexes of multifactor productivity and related measures, selected years

[1996 = 100]

Item	1980	1990	1991	1992	1993	1994	1995	1997	1998	1999	2000	2001
Private business												
Productivity:												
Output per hour of all persons	75.8	90.2	91.3	94.8	95.4	96.6	97.3	102.2	105.0	107.7	111.0	112.4
Output per unit of capital services	103.3	99.7	96.5	98.0	98.7	100.4	99.8	100.3	99.3	98.2	96.6	92.8
Multifactor productivity	88.8	95.5	94.5	96.7	97.1	98.2	98.4	101.2	102.5	103.4	105.0	103.9
Output	59.4	83.6	82.6	85.7	88.5	92.8	95.8	105.2	110.5	115.7	120.4	120.2
Inputs:												
Labor input	71.9	89.4	88.3	89.3	91.8	95.6	98.0	103.5	106.1	109.0	110.1	109.5
Capital services	57.6	83.8	85.7	87.5	89.7	92.5	96.0	104.9	111.3	117.9	124.5	129.6
Combined units of labor and capital input	67.0	87.5	87.4	88.7	91.1	94.6	97.3	104.0	107.9	110.9	114.7	115.7
Capital per hour of all persons	73.4	90.4	94.6	96.8	96.6	96.2	97.5	101.9	105.8	109.7	114.8	121.1
Private nonfarm business												
Productivity:												
Output per hour of all persons	77.3	90.3	91.4	94.8	95.3	96.5	97.5	102.0	104.7	107.1	110.3	111.6
Output per unit of capital services	107.6	100.4	97.0	98.2	99.0	100.4	100.0	100.0	99.0	97.6	95.9	92.0
Multifactor productivity	91.0	95.8	94.8	96.7	97.2	98.2	98.6	101.0	102.2	102.9	104.4	103.3
Output	59.6	83.5	82.5	85.5	88.4	92.6	95.8	105.1	110.5	115.7	120.2	120.1
Inputs:												
Labor input	70.7	89.2	87.9	89.0	91.8	95.4	97.8	103.6	106.4	109.5	110.6	110.1
Capital services	55.4	83.2	85.1	87.0	89.4	92.2	95.8	105.1	111.7	118.5	125.4	130.5
Combined units of labor and capital input	65.5	87.2	87.0	88.4	91.0	94.3	97.2	104.1	108.1	112.4	115.2	116.3
Capital per hour of all persons	71.8	89.9	94.3	96.5	96.3	96.1	97.6	101.9	105.8	109.7	115.0	121.3
Manufacturing												
Productivity:												
Output per hour of all persons	62.0	82.2	84.1	88.6	90.2	93.0	96.5	103.8	108.9	114.0	118.3	119.7
Output per unit of capital services	97.2	97.5	93.6	95.9	96.9	99.7	100.6	101.4	101.7	101.7	101.0	95.1
Multifactor productivity	81.2	93.3	92.4	94.0	95.1	97.3	99.2	103.1	105.7	108.7	111.3	110.3
Output	64.3	83.2	81.5	85.5	88.3	92.9	96.9	105.6	110.5	114.7	117.4	112.1
Inputs:												
Hours of all persons	103.7	101.1	96.9	96.5	97.8	99.9	100.4	101.7	101.5	100.7	99.2	99.6
Capital services	66.1	85.3	87.1	89.1	91.1	93.2	96.4	104.1	108.7	112.8	116.2	117.9
Energy	86.1	93.1	93.2	93.1	96.6	99.9	102.3	97.5	100.6	102.9	104.3	98.9
Nonenergy materials	63.9	77.5	78.5	83.5	86.5	90.3	93.1	101.9	107.5	107.9	106.9	105.5
Purchased business services	65.8	84.7	84.6	92.0	92.9	96.0	100.4	103.9	103.1	105.4	106.5	97.7
Combined units of all factor inputs	79.2	89.1	88.3	90.9	92.8	95.5	97.7	102.4	104.6	105.5	105.5	101.6

50. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

[1992 = 100]

Item	1960	1970	1980	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003
Business													
Output per hour of all persons	48.7	66.0	79.0	94.4	101.7	104.5	106.5	109.3	112.4	115.7	118.3	124.0	129.6
Compensation per hour	13.8	23.5	54.0	90.5	106.0	109.5	113.0	119.7	125.4	134.2	139.7	147.8	147.9
Real compensation per hour	60.5	78.4	88.9	96.1	98.9	99.5	100.5	105.0	107.8	111.6	113.0	113.7	115.1
Unit labor costs	28.4	35.6	68.4	95.9	104.3	104.8	106.1	109.5	111.6	116.0	118.1	115.2	114.1
Unit nonlabor payments	24.9	31.5	61.3	93.9	108.2	111.9	113.9	109.9	109.2	107.2	109.5	117.0	123.0
Implicit price deflator	27.1	34.1	65.8	95.1	105.7	107.4	109.0	109.7	110.7	112.7	114.9	115.8	117.4
Nonfarm business													
Output per hour of all persons	51.6	67.7	80.3	94.4	102.1	104.7	106.4	109.2	112.2	115.3	117.8	123.6	129.1
Compensation per hour	14.4	23.6	54.2	90.3	106.0	109.4	112.8	119.4	124.9	133.7	138.9	142.1	147.0
Real compensation per hour	63.0	78.8	89.2	95.9	98.9	99.4	100.3	104.7	107.3	111.2	112.4	113.2	114.4
Unit labor costs	27.9	34.9	67.5	95.6	103.8	104.5	106.0	109.3	111.3	116.0	118.0	115.0	113.9
Unit nonlabor payments	24.3	31.1	60.4	93.6	109.2	112.1	114.6	110.9	110.8	108.8	111.1	119.0	124.8
Implicit price deflator	26.6	33.5	64.9	94.9	105.8	107.3	109.1	109.9	111.1	113.3	115.4	116.4	117.9
Nonfinancial corporations													
Output per hour of all employees	56.6	70.4	81.0	95.5	103.4	107.1	109.8	112.8	116.4	120.6	122.7	128.9	136.3
Compensation per hour	16.1	25.6	57.0	91.0	105.4	108.4	111.7	117.9	123.3	131.7	137.0	140.1	145.9
Real compensation per hour	70.3	85.3	93.8	96.7	98.3	98.5	99.3	103.4	105.9	109.5	110.8	111.5	113.5
Total unit costs	26.9	35.1	68.8	95.4	101.8	100.9	101.2	103.2	104.6	108.0	111.2	109.4	107.4
Unit labor costs	28.4	36.3	70.4	95.3	102.0	101.2	101.7	104.5	106.0	109.2	111.6	108.6	107.0
Unit nonlabor costs	23.0	31.7	64.5	97.1	101.3	99.9	99.8	99.9	101.0	104.8	110.2	111.5	108.4
Unit profits	49.5	43.7	66.5	96.7	136.9	149.9	154.4	137.5	129.8	109.3	91.4	111.4	134.2
Unit nonlabor payments	30.1	34.9	65.1	97.0	110.8	113.3	114.4	109.9	108.7	106.1	105.2	111.5	115.3
Implicit price deflator	28.9	35.9	68.6	95.9	104.9	105.3	105.9	106.3	106.9	108.1	109.5	109.6	109.8
Manufacturing													
Output per hour of all persons	41.8	54.2	70.1	92.9	110.1	113.9	117.9	123.5	128.2	134.2	137.1	147.1	154.6
Compensation per hour	14.9	23.7	55.6	90.1	107.7	109.9	112.0	118.8	123.8	135.0	138.3	143. 8	151.9
Real compensation per hour	65.0	79.2	91.4	95.7	100.5	99.8	99.7	104.2	106.3	112.3	111.8	114.5	118.2
Unit labor costs	35.6	43.8	79.3	97.0	97.8	96.5	95.0	96.2	96.6	100.6	100.8	97.8	98.2
Unit nonlabor payments	26.8	29.3	80.2	101.1	107.6	110.4	110.5	104.1	105.0	107.0	105.8	–	–
Implicit price deflator	30.2	35.0	79.9	99.5	103.9	105.2	104.6	101.1	101.8	104.6	103.9	–	–

Dash indicates data not available.

51. Annual indexes of output per hour for selected NAICS industries, 1990-2002

[1997=100]

NAICS	Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	Mining													
21	Mining	86.0	86.8	95.2	96.2	99.6	101.8	101.7	100.0	103.4	111.1	109.5	107.7	112.3
211	Oil and gas extraction	78.4	78.8	81.9	85.1	90.3	95.5	98.9	100.0	101.6	107.9	115.2	117.4	119.3
212	Mining, except oil and gas	79.3	80.0	86.8	89.9	93.0	94.0	96.0	100.0	104.6	105.9	106.8	109.0	111.7
2121	Coal mining	68.1	69.3	75.3	79.9	83.9	88.2	94.9	100.0	106.5	110.3	115.8	114.4	112.2
2122	Metal ore mining	79.9	82.7	91.7	102.2	104.1	98.5	95.3	100.0	109.5	112.7	124.4	131.8	143.9
2123	Nonmetallic mineral mining and quarrying	92.3	89.5	96.1	93.6	96.9	97.3	97.1	100.0	101.3	101.2	96.2	99.3	103.8
	Utilities													
2211	Power generation and supply	71.2	73.8	74.2	78.7	83.0	88.6	95.5	100.0	103.8	104.1	107.0	106.4	102.4
2212	Natural gas distribution	71.4	72.7	75.8	79.8	82.1	89.0	96.1	100.0	99.1	103.1	113.1	110.0	114.9
	Manufacturing													
3111	Animal food	90.1	89.3	90.2	90.2	87.3	94.0	87.5	100.0	109.4	109.5	109.7	127.2	–
3112	Grain and oilseed milling	89.0	91.2	91.1	93.8	94.7	99.1	91.3	100.0	107.5	114.2	112.5	117.3	–
3113	Sugar and confectionery products	91.0	93.8	90.5	92.5	94.0	94.3	98.2	100.0	104.0	107.1	111.9	109.9	–
3114	Fruit and vegetable preserving and specialty	86.4	89.7	90.7	93.8	94.9	97.1	98.2	100.0	106.8	108.4	109.8	117.0	–
3115	Dairy products	90.8	92.1	95.4	93.9	95.4	98.7	98.0	100.0	99.1	94.5	96.0	96.2	–
3116	Animal slaughtering and processing	94.5	96.8	101.5	100.9	97.4	98.5	94.3	100.0	99.9	100.3	101.9	102.7	–
3117	Seafood product preparation and packaging	117.5	112.0	115.3	113.9	114.1	108.4	116.2	100.0	117.0	130.2	137.6	147.3	–
3118	Bakeries and tortilla manufacturing	92.6	92.3	95.6	96.0	96.7	99.7	97.7	100.0	103.8	105.4	105.3	106.3	–
3119	Other food products	91.9	93.5	95.9	102.8	100.3	101.3	103.0	100.0	106.9	108.8	110.2	103.2	–
3121	Beverages	86.5	90.1	93.8	93.2	97.7	99.6	101.1	100.0	98.5	92.4	90.6	91.7	–
3122	Tobacco and tobacco products	81.4	77.3	79.6	73.7	89.8	97.5	99.4	100.0	98.1	92.1	98.0	100.0	–
3131	Fiber, yarn, and thread mills	73.9	74.7	80.1	84.6	87.2	92.0	98.7	100.0	102.2	104.6	102.6	110.5	–
3132	Fabric mills	75.0	77.7	81.5	85.0	91.9	95.8	98.0	100.0	103.9	109.8	110.2	109.1	–
3133	Textile and fabric finishing mills	81.7	80.4	83.7	86.0	87.8	84.5	85.0	100.0	100.6	101.7	104.0	109.7	–
3141	Textile furnishings mills	88.2	88.6	93.0	93.7	90.1	92.5	93.3	100.0	99.9	101.2	106.8	106.9	–
3149	Other textile product millsv	91.1	90.0	92.0	90.3	94.5	95.9	96.3	100.0	97.0	110.4	110.4	105.0	–
3151	Apparel knitting mills	85.6	88.7	93.2	102.5	104.3	109.5	121.9	100.0	96.6	102.0	110.2	108.4	–
3152	Cut and sew apparel	70.1	72.0	73.1	76.6	80.5	85.5	90.5	100.0	104.0	118.8	127.7	131.7	–
3159	Accessories and other apparel	100.9	97.3	98.7	99.0	104.6	112.4	112.6	100.0	110.8	103.3	104.9	114.8	–
3161	Leather and hide tanning and finishing	60.8	56.6	76.7	83.1	75.9	78.6	91.5	100.0	98.0	101.6	110.0	109.7	–
3162	Footwear	77.1	74.7	83.1	81.7	90.4	95.6	103.4	100.0	100.9	116.8	124.1	142.7	–
3169	Other leather products	102.5	100.2	97.0	94.3	80.0	73.2	79.7	100.0	109.2	100.4	107.6	114.1	–
3211	Sawmills and wood preservation	79.2	81.6	86.1	82.6	85.1	91.0	96.2	100.0	100.8	105.4	106.5	109.0	–
3212	Plywood and engineered wood products	102.3	107.4	114.7	108.9	105.8	101.8	101.2	100.0	105.6	99.9	100.5	105.0	–
3219	Other wood products	105.4	104.7	104.0	103.0	99.3	100.4	100.8	100.0	101.5	105.4	104.0	104.6	–
3221	Pulp, paper, and paperboard mills	88.5	88.1	92.3	92.9	97.6	102.0	97.6	100.0	103.1	111.4	115.7	117.5	–
3222	Converted paper products	90.5	93.5	93.7	96.3	97.6	97.2	98.3	100.0	102.7	101.5	101.9	101.0	–
3231	Printing and related support activities	96.6	95.4	101.3	100.1	98.3	98.8	99.6	100.0	100.5	103.5	104.9	105.6	–
3241	Petroleum and coal products	76.7	75.8	78.9	84.5	85.6	90.1	94.8	100.0	102.1	107.8	113.2	112.2	–
3251	Basic chemicals	91.4	90.1	89.4	89.9	95.1	92.3	90.0	100.0	102.5	114.7	118.4	111.0	–
3252	Resin, rubber, and artificial fibers	75.8	74.7	80.6	83.8	93.5	95.9	93.3	100.0	105.5	108.8	108.1	103.8	–
3253	Agricultural chemicals	84.6	81.0	81.3	85.6	87.4	90.7	92.1	100.0	98.8	87.6	91.4	91.1	–
3254	Pharmaceuticals and medicines	91.4	92.6	88.2	88.1	92.4	96.3	99.9	100.0	92.9	94.6	93.4	97.4	–
3255	Paints, coatings, and adhesives	85.1	85.9	87.6	90.9	94.1	92.7	98.3	100.0	99.1	98.8	98.5	102.1	–
3256	Soap, cleaning compounds, and toiletries	83.2	84.2	83.4	86.9	88.6	93.9	95.6	100.0	96.6	91.1	99.2	102.7	–
3259	Other chemical products and preparations	76.6	78.0	84.7	90.6	92.6	94.4	94.2	100.0	99.4	109.2	120.0	111.3	–
3261	Plastics products	84.7	86.3	90.3	91.9	94.4	94.5	97.0	100.0	103.5	109.3	111.2	113.3	–
3262	Rubber products	83.0	83.8	84.9	90.4	90.3	92.8	94.4	100.0	100.5	101.4	103.9	104.2	–
3271	Clay products and refractories	89.2	87.5	91.5	91.9	96.6	97.4	102.6	100.0	101.3	103.5	103.6	97.6	–
3272	Glass and glass products	80.0	79.1	84.3	86.1	87.5	88.8	96.5	100.0	102.7	108.6	109.7	105.2	–
3273	Cement and concrete products	94.8	93.7	94.8	96.5	95.0	98.2	100.6	100.0	103.5	104.1	100.4	97.1	–
3274	Lime and gypsum products	84.1	82.7	88.5	90.1	87.8	88.8	92.4	100.0	113.1	102.7	97.0	100.1	–
3279	Other nonmetallic mineral products	79.8	81.4	90.2	89.3	90.5	91.7	96.5	100.0	98.8	95.5	95.6	96.8	–
3311	Iron and steel mills and ferroalloy production	69.6	67.2	74.1	81.7	87.2	89.7	94.1	100.0	101.7	106.5	108.5	106.7	–
3312	Steel products from purchased steel	83.8	86.4	89.9	95.9	100.0	100.5	100.5	100.0	100.3	94.2	96.4	97.1	–
3313	Alumina and aluminum production	91.9	93.3	96.8	96.0	100.3	96.8	95.9	100.0	101.1	104.3	97.8	96.9	–
3314	Other nonferrous metal production	95.6	95.8	98.8	101.8	105.1	102.9	105.7	100.0	111.2	108.9	103.1	100.5	–
3315	Foundries	85.3	84.5	85.8	89.8	91.4	93.1	96.2	100.0	101.6	104.9	104.0	109.3	–
3321	Forging and stamping	88.6	86.5	91.7	94.6	93.7	94.2	97.6	100.0	103.7	110.9	121.3	121.8	–
3322	Cutlery and hand tools	85.1	85.4	87.2	91.7	94.4	97.8	104.4	100.0	100.0	107.8	105.8	110.2	–
3323	Architectural and structural metals	87.8	89.1	92.5	93.4	95.1	93.9	94.2	100.0	101.1	101.8	101.0	100.7	–
3324	Boilers, tanks, and shipping containers	90.4	92.6	95.3	94.8	100.5	97.8	100.7	100.0	101.3	98.9	97.7	98.2	–
3325	Hardware	84.4	83.8	86.9	89.6	95.7	97.3	102.6	100.0	101.0	106.5	115.8	114.6	–
3326	Spring and wire products	85.2	88.4	90.9	95.3	91.5	99.5	102.8	100.0	111.6	112.9	114.6	110.6	–
3327	Machine shops and threaded products	78.8	79.8	87.2	86.9	91.6	98.7	100.0	100.0	99.3	103.9	107.2	107.2	–

51. Continued—Annual indexes of output per hour for selected NAICS industries, 1990-2002

[1997=100]

NAICS	Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
3328	Coating, engraving, and heat treating metals	81.6	78.1	86.9	91.9	96.5	102.8	102.9	100.0	101.7	101.5	105.9	105.1	-
3329	Other fabricated metal products	86.7	85.9	90.6	92.1	95.0	97.1	98.9	100.0	102.3	100.2	100.8	98.2	-
3331	Agriculture, construction, and mining machinery	82.8	77.2	79.6	84.1	91.0	95.6	95.9	100.0	104.2	95.0	101.0	99.5	-
3332	Industrial machinery	80.6	81.1	79.5	84.9	90.0	97.9	98.8	100.0	94.4	105.2	129.7	104.6	-
3333	Commercial and service industry machinery	91.4	89.6	96.5	101.7	101.2	103.0	106.3	100.0	107.5	111.2	101.4	94.4	-
3334	HVAC and commercial refrigeration equipment	88.8	88.2	90.8	93.8	97.3	96.6	97.8	100.0	106.6	110.4	108.3	110.8	-
3335	Metalworking machinery	85.3	82.3	89.3	89.3	94.0	99.1	98.1	100.0	99.1	100.5	106.4	102.0	-
3336	Turbine and power transmission equipment	85.1	84.6	81.2	84.8	93.3	92.1	97.9	100.0	106.4	113.3	117.1	130.2	-
3339	Other general purpose machinery	85.9	85.2	85.1	89.8	91.5	94.6	95.1	100.0	103.2	105.6	113.0	109.4	-
3341	Computer and peripheral equipment	14.3	15.8	20.6	27.9	35.9	51.3	72.6	100.0	138.6	190.3	225.4	237.0	-
3342	Communications equipment	47.3	49.3	59.3	62.1	70.1	74.6	84.3	100.0	102.7	134.0	165.5	155.2	-
3343	Audio and video equipment	75.5	82.8	92.1	98.8	108.5	140.0	104.7	100.0	103.1	116.2	123.3	126.3	-
3344	Semiconductors and electronic components	21.4	24.5	29.6	34.1	43.1	63.4	81.8	100.0	125.2	174.5	233.3	231.6	-
3345	Electronic instruments	76.0	80.5	83.1	85.8	88.8	96.8	97.7	100.0	101.3	105.1	114.3	116.1	-
3346	Magnetic media manufacturing and reproduction	86.6	91.2	93.0	96.8	106.1	106.7	103.8	100.0	105.4	106.8	104.0	98.6	-
3351	Electric lighting equipment	87.3	88.5	93.6	90.8	94.5	92.2	95.6	100.0	103.8	102.5	101.9	105.4	-
3352	Household appliances	76.4	76.4	82.4	88.9	95.0	92.7	93.1	100.0	105.1	104.3	117.5	122.6	-
3353	Electrical equipment	73.6	72.7	78.9	85.8	89.0	98.1	100.2	100.0	99.8	98.9	100.6	101.0	-
3359	Other electrical equipment and components	75.3	74.2	81.6	86.8	89.4	92.0	96.0	100.0	105.5	114.8	120.5	113.5	-
3361	Motor vehicles	86.0	82.4	91.2	89.8	90.3	88.6	91.0	100.0	113.3	123.3	110.4	108.7	-
3362	Motor vehicle bodies and trailers	75.8	71.8	88.3	96.3	97.7	97.3	98.4	100.0	102.7	103.1	98.4	99.4	-
3363	Motor vehicle parts	75.7	74.5	82.4	88.5	91.8	92.3	93.1	100.0	104.8	110.4	112.7	114.8	-
3364	Aerospace products and parts	87.7	92.1	94.1	98.2	93.8	93.7	98.1	100.0	118.5	118.0	101.0	114.7	-
3365	Railroad rolling stock	77.2	80.0	81.1	82.3	83.1	82.0	80.9	100.0	102.9	116.0	117.7	124.7	-
3366	Ship and boat building	99.6	92.6	98.5	101.3	99.0	93.1	94.1	100.0	100.3	112.2	120.1	119.8	-
3369	Other transportation equipment	62.6	62.0	88.4	99.8	93.4	93.1	99.8	100.0	110.8	113.3	130.9	146.9	-
3371	Household and institutional furniture	87.6	88.2	92.9	93.8	94.1	97.1	99.5	100.0	102.7	103.7	102.5	106.1	-
3372	Office furniture and fixtures	80.8	78.8	86.2	87.9	83.4	84.3	85.6	100.0	100.1	98.5	100.2	97.1	-
3379	Other furniture-related products	88.1	88.6	88.4	90.5	93.6	94.5	96.7	100.0	107.2	102.5	100.1	105.3	-
3391	Medical equipment and supplies	81.2	83.1	88.1	91.1	90.8	95.0	100.0	100.0	108.9	109.6	114.2	119.0	-
3399	Other miscellaneous manufacturing	90.1	90.6	90.0	92.3	93.0	96.0	99.6	100.0	101.9	105.2	112.9	110.9	-
	Wholesale trade													
42	Wholesale trade	77.8	79.1	86.2	89.5	91.3	93.3	96.2	100.0	104.4	110.9	114.1	117.1	123.6
423	Durable goods	65.7	66.1	75.0	80.5	84.5	88.9	94.0	100.0	105.6	115.3	119.6	120.3	127.7
4231	Motor vehicles and parts	76.6	73.3	82.2	88.0	94.1	93.6	94.9	100.0	104.7	119.8	114.0	114.1	121.7
4232	Furniture and furnishings	82.4	87.2	92.0	95.8	93.3	96.8	97.0	100.0	97.5	100.8	105.5	105.4	101.8
4233	Lumber and construction supplies	115.0	113.2	119.6	113.9	111.9	103.6	103.0	100.0	102.9	104.8	101.7	108.6	119.2
4234	Commercial equipment	33.8	37.3	48.2	56.2	60.5	74.7	88.4	100.0	118.2	141.1	148.9	164.9	189.4
4235	Metals and minerals	101.6	102.6	109.1	111.7	110.1	101.2	102.7	100.0	102.4	96.0	99.2	102.2	102.2
4236	Electric goods	46.8	47.6	51.4	59.1	68.2	79.3	87.8	100.0	105.9	126.2	151.7	148.1	161.2
4237	Hardware and plumbing	88.8	86.5	95.6	94.3	101.3	98.0	99.1	100.0	103.5	107.8	111.1	102.6	107.9
4238	Machinery and supplies	78.9	74.2	79.7	84.3	85.4	89.7	93.9	100.0	104.2	101.4	104.1	102.7	100.2
4239	Miscellaneous durable goods	89.5	96.6	112.1	113.2	106.1	99.2	101.0	100.0	101.8	112.6	116.7	116.1	125.5
424	Nondurable goods	98.4	99.8	103.2	103.0	101.8	99.7	99.2	100.0	102.8	104.1	103.5	106.9	112.6
4241	Paper and paper products	81.0	85.5	96.5	97.2	101.5	99.0	96.5	100.0	100.4	105.5	105.5	109.0	120.2
4242	Druggists' goods	81.8	86.6	91.8	89.3	92.8	95.4	98.3	100.0	99.6	101.7	96.8	101.2	116.0
4243	Apparel and piece goods	103.9	103.3	100.1	97.7	103.8	92.2	99.0	100.0	104.1	103.5	102.7	102.4	111.5
4244	Grocery and related products	96.4	98.2	103.6	105.1	103.3	103.0	99.8	100.0	101.9	103.6	105.2	109.4	111.8
4245	Farm product raw materials	80.6	85.9	85.9	84.0	80.4	87.7	90.6	100.0	100.4	114.2	119.0	120.0	135.4
4246	Chemicals	107.3	106.6	112.5	110.0	110.5	102.1	100.0	100.0	99.3	98.0	95.8	93.6	96.9
4247	Petroleum	97.3	107.0	118.3	119.1	115.8	108.7	105.9	100.0	115.0	112.0	112.5	116.5	126.0
4248	Alcoholic beverages	109.4	111.2	107.4	105.6	105.9	102.5	104.5	100.0	109.7	110.1	111.0	111.6	117.3
4249	Miscellaneous nondurable goods	107.3	98.2	93.9	97.5	94.8	96.2	98.7	100.0	101.7	99.6	106.2	104.2	97.0
425	Electronic markets and agents and brokers	70.7	73.6	81.5	85.9	88.0	91.1	95.7	100.0	104.6	114.4	124.1	131.3	132.6
42511	Business to business electronic markets	70.4	72 6	80.3	84.8	88.3	90.5	95.3	100.0	103.5	121.7	141.3	169.4	205.0
42512	Wholesale trade agents and brokers	70.8	74.0	82.3	86.8	88.4	91.8	96.1	100.0	104.8	110.5	115.7	114.2	109.3
	Retail trade													
44-45	Retail trade	83.2	83.3	86.8	89.4	92 8	94.7	97.7	100.0	104.3	110.3	114.2	117.4	122.7
441	Motor vehicle and parts dealers	89.7	88.3	92.6	94.0	96.9	97.0	98.8	100.0	102.7	106.4	107.2	110.0	109.7
4411	Automobile dealers	92.1	90.8	94.8	96.0	98.0	97.2	98.9	100.0	102.7	106.4	106.6	109.1	106.0
4412	Other motor vehicle dealers	69.0	71.7	78.3	84.1	90.2	91.0	97.7	100.0	105.9	113.0	108.6	112.6	116.4
4413	Auto parts, accessories, and tire stores	85.0	84.0	89.1	90.6	95.4	97.9	98.3	100.0	105.7	110.0	112.0	109.3	115.8
442	Furniture and home furnishings stores	80.7	81.1	88.1	88.3	90.4	94.1	99.4	100.0	101.7	109.6	115.7	118.5	125.1
4421	Furniture stores	82.1	83.5	89.0	89.0	88.9	92.5	97.8	100.0	102.1	108.2	114.8	121.1	128.6
4422	Home furnishings stores	78.5	77.6	86.8	87.2	92.1	95.9	101.3	100.0	101.3	111.4	116.8	115.6	121.4
443	Electronics and appliance stores	46.0	49.2	56.9	65.5	77.6	89.2	95.0	100.0	122.9	152.2	177.7	199.1	240.0
444	Building material and garden supply stores	81.8	80.2	84.0	88.0	93.7	93.7	97.5	100.0	106.7	112.3	113.1	115.8	119.9

51. Continued - Annual indexes of output per hour for selected NAICS industries, 1990-2002

[1997=100]

NAICS	Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
4441	Building material and supplies dealers	83.2	80.7	84.7	89.1	94.8	94.8	97.6	100.0	107.6	113.7	113.8	115.3	119.8
4442	Lawn and garden equipment and supplies stores	74.5	77.5	80.2	81.5	86.9	87.0	97.1	100.0	101.2	103.5	108.2	119.4	121.2
445	Food and beverage stores	107.1	106.6	106.9	105.4	104.3	102.5	100.3	100.0	99.9	103.7	105.1	107.6	110.3
4451	Grocery stores	106.5	106.6	106.7	105.9	104.9	103.0	100.8	100.0	100.3	104.3	104.9	107.5	110.3
4452	Specialty food stores	122.9	115.0	111.4	107.6	104.5	101.1	95.5	100.0	95.0	99.6	105.6	110.8	114.2
4453	Beer, wine and liquor stores	100.1	100.2	101.0	94.4	92.9	96.2	103.1	100.0	105.8	99.8	111.1	110.4	111.8
446	Health and personal care stores	92.0	91.6	90.7	91.9	91.8	93.0	95.7	100.0	104.1	106.9	111.4	112.7	118.8
447	Gasoline stations	84.8	85.7	88.5	92.8	96.8	99.7	99.4	100.0	105.6	110.6	106.5	109.8	117.5
448	Clothing and clothing accessories stores	69.5	70.5	75.3	78.9	83.3	91.2	97.9	100.0	105.4	112.8	120.3	123.5	129.0
4481	Clothing stores	68.9	71.4	77.1	79.2	81.9	90.1	97.1	100.0	106.7	113.3	120.9	125.2	132.7
4482	Shoe stores	73.7	73.1	78.2	79.2	88.3	93.7	102.4	100.0	97.8	104.9	109.6	115.8	120.0
4483	Jewelry, luggage, and leather goods stores	68.6	64.5	65.0	77.1	85.0	94.1	97.3	100.0	107.0	118.3	128.0	122.5	121.5
451	Sporting goods, hobby, book, and music stores	80.8	85.6	83.8	84.0	87.2	93.0	94.7	100.0	108.7	114.9	121.1	125.4	132.9
4511	Sporting goods and musical instrument stores	77.1	82.8	79.8	80.6	83.9	92.3	92.5	100.0	112.9	120.4	128.3	130.4	137.9
4512	Book, periodical, and music stores	89.0	91.8	92.5	91.6	94.5	94.5	99.3	100.0	101.0	104.7	108.0	116.0	123.8
452	General merchandise stores	75.3	79.0	83.0	88.5	90.6	92.2	96.9	100.0	105.0	113.1	119.9	124.2	130.5
4521	Department stores	84.0	88.3	91.6	95.0	95.1	94.7	98.4	100.0	100.6	104.5	106.3	104.0	104.7
4529	Other general merchandise stores	61.4	64.8	69.7	77.8	82.6	87.6	94.3	100.0	113.4	129.8	145.9	162.1	177.5
453	Miscellaneous store retailers	70.6	68.0	74.2	79.1	87.0	89.5	95.0	100.0	108.3	109.8	111.3	108.4	115.6
4531	Florists	75.1	75.9	85.1	91.4	85.4	83.5	96.1	100.0	101.2	117.3	116.0	108.6	120.7
4532	Office supplies, stationery and gift stores	64.6	66.3	71.5	75.8	87.5	90.9	91.8	100.0	113.0	118.0	124.1	125.1	140.3
4533	Used merchandise stores	84.9	83.1	89.7	88.9	87.3	90.2	97.4	100.0	113.5	109.8	115.7	115.0	121.4
4539	Other miscellaneous store retailers	79.6	69.2	74.7	80.5	89.7	90.5	98.0	100.0	105.0	101.6	99.6	93.2	92.8
454	Nonstore retailers	54.4	55.0	63.4	66.7	73.8	80.9	91.6	100.0	111.3	125.4	142.8	146.9	169.6
4541	Electronic shopping and mail-order houses	43.5	46.7	50.6	58.3	62.9	71.9	84.4	100.0	118.2	141.5	159.8	177.5	209.8
4542	Vending machine operators	97.1	95.4	95.1	92.8	94.1	89.3	96.9	100.0	114.1	118.1	127.1	110.4	113.3
4543	Direct selling establishments	70.0	67.6	82.1	79.7	89.2	94.7	102.2	100.0	96.2	96.3	104.3	98.7	110.2
	Transportation and warehousing													
481	Air transportation	77.5	78.2	81.4	84.7	90.8	95.3	98.8	100.0	97.6	98.2	98.2	91.9	103.2
482111	Line-haul railroads	69.8	75.3	82.3	85.7	88.6	92.0	98.4	100.0	102.1	105.5	114.3	121.9	131.9
48412	General freight trucking, long-distance	88.5	92.4	97.5	95.6	98.1	95.4	95.7	100.0	99.1	102.0	105.5	104.2	109.4
491	U.S. Postal service	96.1	95.8	96.5	99.0	98.5	98.3	96.7	100.0	101.4	102.4	104.9	106.1	107.0
	Information													
5111	Newspaper, book, and directory publishers	97.4	96.1	95.8	95.3	93.0	93.5	92.7	100.0	104.5	108.5	110.1	106.4	108.1
5112	Software publishers	28.6	30.6	42.7	51.7	64.6	73.0	88.0	100.0	115.9	113.0	103.9	101.9	106.7
51213	Motion picture and video exhibition	109.4	108.9	104.1	104.6	103.4	99.9	100.0	100.0	99.9	102.0	106.5	104.7	104.4
5151	Radio and television broadcasting	96.1	97.8	102.8	101.4	106.0	106.1	104.1	100.0	99.1	99.4	98.4	94.3	100.4
5152	Cable and other subscription programming	98.8	94.3	96.0	93.6	92.0	94.4	93.7	100.0	129.3	133.2	135.7	125.3	131.4
5171	Wired telecommunications carriers	64.8	68.4	74.5	79.7	85.1	90.6	97.5	100.0	105.5	112.7	119.9	121.0	130.6
5172	Wireless telecommunications carriers	76.3	73.8	85.6	94.8	97.1	98.3	103.0	100.0	114.2	134.3	139.0	172.7	192.0
5175	Cable and other program distribution	99.1	94.3	95.9	93.5	91.9	94.2	93.5	100.0	95.7	94.5	90.4	87.6	93.5
	Finance and insurance													
52211	Commercial banking	80.5	83.2	83.3	90.3	92.9	96.0	99.3	100.0	98.0	101.5	104.2	101.6	103.8
	Real estate and rental and leasing													
532111	Passenger car rental	89.8	97.8	104.4	106.1	107.9	101.1	108.9	100.0	101.2	113.1	112.0	112.1	113.3
53212	Truck, trailer and RV rental and leasing	70.7	71.7	69.5	75.8	82.0	90.3	96.7	100.0	93.7	97.8	95.9	93.6	91.4
	Professional, scientific, and technical services													
541213	Tax preparation services	92.4	84.7	99.5	119.1	119.9	96.2	92.1	100.0	105.1	99.2	91.8	78.2	92.1
54181	Advertising agencies	105.0	99.7	111.9	111.3	106.8	101.4	102.1	100.0	95.8	110.1	116.6	116.7	123.9
	Accomodation and food services													
7211	Traveler accommodations	82.9	85.4	92.9	93.0	97.0	99.2	100.1	100.0	100.0	103.6	107.7	102.0	104.1
722	Food services and drinking places	102.9	102.3	101.7	102.3	100.8	100.6	99.2	100.0	101.2	101.1	103.5	103.7	104.9
7221	Full-service restaurants	99.1	98.3	97.5	97.7	97.8	96.6	96.3	100.0	100.0	99.2	100.8	100.8	102.0
7222	Limited-service eating places	103.3	103.3	102.7	105.6	103.6	104.7	102.2	100.0	102.4	102.5	105.1	106.6	107.1
7223	Special food services	107.2	106.9	106.4	103.8	101.1	99.3	97.6	100.0	102.1	106.0	111.7	108.4	108.1
7224	Drinking places, alcoholic beverages	125.7	121.2	121.5	112.7	102.6	104.4	102.4	100.0	100.0	99.4	100.4	98.2	107.2
	Other services (except public administration)													
8111	Automotive repair and maintenance	92.8	86.5	90.0	91.2	96.7	102.9	98.9	100.0	105.0	106.9	108.6	109.3	103.7
81211	Hair, nail and skin care services	81.6	79.8	85.6	84.3	88.7	92.4	97.1	100.0	102.7	103.6	103.0	109.5	104.2
81221	Funeral homes and funeral services	96.1	94.3	104.7	100.4	103.6	100.4	97.9	100.0	103.8	100.4	94.5	93.9	90.9
8123	Drycleaning and laundry services	95.6	93.2	94.9	93.8	95.9	98.8	101.6	100.0	105.0	109.5	113.7	121.1	120.2
81292	Photofinishing	117.3	115.6	116.2	123.6	124.9	114.7	103.2	100.0	99.4	106.9	107.6	115.0	133.6

NOTE: Dash indicates data are not available.

52. Unemployment rates, approximating U.S. concepts, in nine countries, quarterly data seasonally adjusted

Country	Annual average		2002			2003					2004
	2002	2003	II	III	IV	I	II	III	IV	I	II
United States	5.8	6.0	5.8	5.7	5.9	5.8	6.1	6.1	5.9	5.6	5.6
Canada	7.0	6.9	6.9	7.0	6.9	6.7	6.9	7.2	6.8	6.7	6.6
Australia	6.4	6.1	6.4	6.3	6.2	6.2	6.2	6.1	5.8	5.7	5.6
Japan	5.4	5.3	5.4	5.5	5.4	5.4	5.4	5.2	5.1	5.0	4.7
France	8.7	9.3	8.6	8.7	8.9	9.0	9.2	9.4	9.4	9.4	9.4
Germany	8.6	9.3	8.5	8.7	8.9	9.2	9.4	9.4	9.3	9.2	9.9
Italy[1]	9.1	8.8	9.2	9.1	9.0	9.0	8.8	8.7	8.6	8.6	–
Sweden[2]	5.1	5.8	5.0	5.1	5.2	5.2	5.6	5.8	6.2	6.6	6.8
United Kingdom	5.2	5.0	5.2	5.2	5.1	5.1	5.0	5.0	4.9	4.8	4.8

[1] Quarterly rates are for the first month of the quarter.

[2] Preliminary data for 2003.

NOTE: Quarterly figures for France and Germany are calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See "Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1959-2003* (Bureau of Labor Statistics, June 23, 2004), on the Internet at **http://www.bls.gov/fls/home.htm**.

Monthly and quarterly unemployment rates, updated monthly, are also on this site.

53. Annual data: employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Civilian labor force											
United States	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510
Canada	14,308	14,400	14,517	14,669	14,958	15,237	15,536	15,789	16,027	16,475	16,819
Australia	8,613	8,770	8,995	9,115	9,204	9,339	9,414	9,590	9,752	9,907	10,092
Japan	65,470	65,780	65,990	66,450	67,200	67,240	67,090	66,990	66,870	66,240	66,010
France	24,480	24,670	24,760	25,010	25,130	25,460	25,790	26,070	26,350	26,590	26,730
Germany	39,102	39,074	38,980	39,142	39,415	39,754	39,375	39,302	39,459	39,413	39,276
Italy	22,570	22,450	22,460	22,570	22,680	22,960	23,130	23,340	23,540	23,750	23,880
Netherlands	7,010	7,150	7,210	7,300	7,540	7,620	7,850	8,150	8,340	8,300	8,330
Sweden	4,444	4,418	4,460	4,459	4,418	4,402	4,430	4,489	4,530	4,544	4,567
United Kingdom	28,165	28,149	28,157	28,260	28,417	28,479	28,769	28,930	29,053	29,288	29,490
Participation rate[1]											
United States	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2
Canada	65.5	65.2	64.9	64.7	65.0	65.4	65.8	65.9	66.0	66.8	67.3
Australia	63.5	63.9	64.5	64.6	64.3	64.3	64.0	64.4	64.4	64.4	64.6
Japan	63.3	63.1	62.9	63.0	63.2	62.8	62.4	62.0	61.6	60.8	60.3
France	55.4	55.5	55.4	55.6	55.5	55.9	56.3	56.6	56.8	57.0	57.0
Germany	57.8	57.4	57.1	57.1	57.3	57.7	56.8	56.6	56.6	56.3	56.1
Italy	47.9	47.3	47.1	47.1	47.2	47.6	47.8	48.1	48.3	48.6	48.8
Netherlands	57.9	58.6	58.8	59.2	60.8	61.1	62.6	64.5	65.8	65.0	64.6
Sweden	64.5	63.7	64.1	64.0	63.3	62.8	62.8	63.8	63.7	64.0	64.0
United Kingdom	62.7	62.6	62.4	62.4	62.6	62.5	62.9	62.9	62.7	62.9	62.9
Employed											
United States	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736
Canada	12,770	13,027	13,271	13,380	13,705	14,068	14,456	14,827	14,997	15,325	15,660
Australia	7,699	7,942	8,256	8,364	8,444	8,618	8,762	8,989	9,091	9,271	9,481
Japan	63,810	63,860	63,890	64,200	64,900	64,450	63,920	63,790	63,470	62,650	62,510
France	21,710	21,750	21,960	22,040	22,170	22,600	23,050	23,690	24,140	24,280	24,250
Germany	35,989	35,756	35,780	35,637	35,508	36,061	36,042	36,236	36,350	36,018	35,615
Italy	20,270	19,940	19,820	19,920	19,990	20,210	20,460	20,840	21,270	21,580	21,790
Netherlands	6,570	6,660	6,730	6,860	7,160	7,320	7,600	7,910	8,130	8,070	8,010
Sweden	4,028	3,992	4,056	4,019	3,973	4,034	4,117	4,229	4,303	4,310	4,303
United Kingdom	25,242	25,429	25,718	25,964	26,433	26,696	27,048	27,350	27,570	27,768	28,011
Employment-population ratio[2]											
United States	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3
Canada	58.5	59.0	59.4	59.1	59.7	60.4	61.3	62.1	61.9	62.4	63.0
Australia	56.8	57.8	59.2	59.3	59.0	59.3	59.6	60.3	60.1	60.3	60.7
Japan	61.7	61.3	60.9	60.9	61.0	60.2	59.4	59.0	58.4	57.5	57.1
France	49.1	49.0	49.1	49.0	49.0	49.7	50.3	51.4	52.0	52.0	51.7
Germany	53.2	52.6	52.4	52.0	51.6	52.3	52.0	52.2	52.2	51.5	50.9
Italy	43.0	42.0	41.5	41.6	41.6	41.9	42.3	42.9	43.6	44.1	44.6
Netherlands	54.2	54.6	54.9	55.7	57.8	58.7	60.6	62.6	64.2	63.2	62.1
Sweden	58.5	57.6	58.3	57.7	56.9	57.6	58.4	60.1	60.5	60.7	60.3
United Kingdom	56.2	56.5	57.0	57.4	58.2	58.6	59.1	59.4	59.5	59.6	59.8
Unemployed											
United States	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774
Canada	1,539	1,373	1,246	1,289	1,252	1,169	1,080	962	1,031	1,150	1,159
Australia	914	829	739	751	759	721	652	602	661	636	611
Japan	1,660	1,920	2,100	2,250	2,300	2,790	3,170	3,200	3,400	3,590	3,500
France	2,770	2,920	2,800	2,970	2,960	2,870	2,740	2,380	2,210	2,310	2,480
Germany	3,113	3,318	3,200	3,505	3,907	3,693	3,333	3,065	3,110	3,396	3,661
Italy	2,300	2,510	2,640	2,650	2,690	2,750	2,670	2,500	2,270	2,160	2,100
Netherlands	440	490	480	440	370	300	250	240	210	230	320
Sweden	416	426	404	440	445	368	313	260	227	234	264
United Kingdom	2,916	2,716	2,439	2,297	1,985	1,783	1,721	1,580	1,483	1,520	1,479
Unemployment rate											
United States	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0
Canada	10.8	9.5	8.6	8.8	8.4	7.7	7.0	6.1	6.4	7.0	6.9
Australia	10.6	9.4	8.2	8.2	8.3	7.7	6.9	6.3	6.8	6.4	6.1
Japan	2.5	2.9	3.2	3.4	3.4	4.1	4.7	4.8	5.1	5.4	5.3
France	11.3	11.8	11.3	11.9	11.8	11.3	10.6	9.1	8.4	8.7	9.3
Germany	8.0	8.5	8.2	9.0	9.9	9.3	8.5	7.8	7.9	8.6	9.3
Italy	10.2	11.2	11.8	11.7	11.9	12.0	11.5	10.7	9.6	9.1	8.8
Netherlands	6.3	6.9	6.7	6.0	4.9	3.9	3.2	2.9	2.5	2.8	3.8
Sweden	9.4	9.6	9.1	9.9	10.1	8.4	7.1	5.8	5.0	5.1	5.8
United Kingdom	10.4	9.6	8.7	8.1	7.0	6.3	6.0	5.5	5.1	5.2	5.0

[1] Labor force as a percent of the working-age population.

[2] Employment as a percent of the working-age population.

NOTE: See "Notes on the data" for information on breaks in series.

For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries,* 1959-2003 (Bureau of Labor Statistics, June 23, 2004), on the Internet at: **http://www.bls.gov/fls/home.htm**.

Table 54. Annual indexes of manufacturing productivity and related measures, 12 countries

(1992 = 100)

Item and country	1960	1970	1980	1990	1991	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Output per hour																
United States	–	0.0	70.5	96.9	97.9	102.1	107.3	113.8	117.0	121.3	126.5	132.8	143.5	145.2	160.0	171.0
Canada	37.8	54.9	72.9	93.4	95.3	105.8	110.8	112.4	109.7	113.5	115.5	122.1	129.3	127.0	130.5	132.1
Japan	13.9	37.7	63.6	94.4	99.0	101.7	103.3	111.0	116.1	121.0	121.2	126.7	135.9	135.9	139.9	146.2
Belgium	18.0	32.9	65.4	96.8	99.1	102.5	108.4	113.2	116.3	125.5	126.9	125.5	130.8	132.6	141.7	146.2
Denmark	25.2	46.3	83.2	98.4	100.3	100.2	112.6	112.5	109.8	118.0	117.4	123.1	126.6	127.2	131.3	136.9
France	19.9	39.0	61.6	93.9	97.0	101.0	108.9	114.4	114.7	121.7	127.9	133.0	142.5	148.0	155.1	158.0
Germany	29.2	52.0	77.2	99.0	98.3	101.8	109.6	112.3	114.7	120.4	122.0	121.4	127.0	127.8	131.0	134.4
Italy	24.8	46.2	78.6	96.6	96.1	101.2	104.8	107.9	108.3	110.3	110.8	110.6	113.5	114.0	112.1	110.9
Netherlands	18.8	38.5	69.1	98.7	99.0	102.0	113.1	117.3	119.3	121.4	124.1	127.0	132.7	132.5	135.4	–
Norway	37.6	59.1	77.9	98.1	98.2	99.6	99.6	100.7	102.5	102.0	99.9	103.6	106.6	109.8	111.7	113.5
Sweden	27.3	52.2	73.1	94.6	95.5	107.3	117.8	124.5	129.5	141.0	149.5	162.7	175.5	170.3	185.6	196.5
United Kingdom	30.0	43.2	54.3	89.2	93.9	103.8	108.0	106.2	105.4	106.9	108.4	113.6	121.0	125.1	127.7	134.8
Output																
United States	–	–	75.8	101.6	98.3	103.5	111.1	118.4	121.3	127.9	133.1	138.9	147.6	139.6	142.9	145.4
Canada	33.4	58.9	83.6	106.0	99.0	105.9	114.1	119.6	119.6	127.7	133.9	144.9	159.2	153.6	158.0	157.3
Japan	10.8	39.4	60.8	97.1	102.0	96.3	94.9	98.9	103.0	106.5	100.2	101.9	109.2	105.5	103.4	106.7
Belgium	30.7	57.6	78.2	101.0	100.7	97.0	101.4	104.2	105.9	112.7	114.4	114.4	119.9	120.4	121.6	120.9
Denmark	42.0	72.7	94.3	101.7	100.7	97.0	107.3	112.6	107.7	115.9	116.7	117.9	121.9	121.6	120.8	121.4
France	27.9	57.7	81.6	99.1	99.8	95.7	100.3	104.9	104.6	109.7	115.0	118.7	124.3	128.0	129.1	128.5
Germany	41.5	70.9	85.3	99.1	102.3	92.4	95.1	95.2	92.5	95.7	97.7	95.8	100.1	99.9	99.6	99.8
Italy	23.0	48.1	84.4	99.4	99.3	96.5	102.4	107.2	105.4	108.8	110.7	110.3	113.6	113.0	111.7	110.2
Netherlands	31.9	59.8	76.9	99.0	99.8	97.7	104.5	108.2	108.9	111.6	114.9	117.6	122.8	121.9	121.0	117.6
Norway	57.7	91.0	104.9	101.4	99.0	101.7	104.6	107.3	110.3	114.2	113.7	113.6	112.8	112.3	111.5	107.3
Sweden	45.9	80.7	90.7	110.1	104.1	101.9	117.0	131.9	136.4	146.5	158.3	172.5	188.3	183.1	190.6	194.4
United Kingdom	67.5	90.2	87.2	105.3	100.1	101.5	106.2	107.8	108.6	110.7	111.3	112.1	115.0	113.4	109.9	110.3
Total hours																
United States	92.1	104.4	107.5	104.8	100.4	101.4	103.6	104.0	103.6	105.4	105.2	104.6	102.9	96.2	89.3	85.0
Canada	88.3	107.1	114.6	113.5	103.9	100.1	103.0	106.4	109.0	112.4	115.9	118.7	123.1	120.9	121.1	119.1
Japan	77.8	104.3	95.5	102.9	103.1	94.7	91.9	89.1	88.7	88.0	82.7	80.4	80.3	77.7	74.0	73.0
Belgium	170.7	174.7	119.7	104.3	101.5	94.7	93.6	92.0	91.0	89.8	90.2	91.2	91.7	90.8	85.8	82.7
Denmark	166.7	157.1	113.4	103.3	100.5	96.7	95.2	100.1	98.1	98.2	99.4	95.8	96.3	95.6	92.0	88.7
France	140.3	147.8	132.5	105.6	102.9	94.7	92.1	91.7	91.2	90.2	89.9	89.2	87.2	86.5	83.2	81.3
Germany	142.3	136.3	110.5	100.1	104.1	90.8	86.8	84.8	80.6	79.5	80.1	78.9	78.8	78.2	76.1	74.3
Italy	93.5	104.0	107.4	102.9	103.3	95.4	97.7	99.4	97.3	98.6	99.9	99.8	100.1	99.1	99.7	99.3
Netherlands	169.8	155.5	111.2	100.3	100.8	95.8	92.4	92.3	91.2	91.9	92.6	92.6	92.5	92.0	89.4	–
Norway	153.6	153.9	134.7	103.4	100.8	102.1	105.0	106.6	107.6	112.0	113.7	109.6	105.9	102.3	99.8	94.5
Sweden	168.3	154.7	124.0	116.4	109.0	94.9	99.4	105.9	105.3	103.9	105.9	106.0	107.3	107.5	102.7	98.9
United Kingdom	224.6	208.8	160.5	118.1	106.6	97.7	98.4	101.5	103.1	103.5	102.7	98.7	95.0	90.7	86.0	81.9
Hourly compensation (national currency basis)																
United States	14.9	23.7	55.6	90.8	95.6	102.7	105.6	107.9	109.4	111.5	117.4	122.0	133.2	136.3	145.4	157.8
Canada	10.0	17.1	47.5	88.3	95.0	102.0	103.7	106.0	107.0	109.3	111.7	115.8	119.6	123.7	126.8	131.4
Japan	4.3	16.4	58.6	90.6	96.5	102.7	104.7	108.3	109.1	112.6	115.4	114.8	113.7	114.6	122.8	123.8
Belgium	5.4	13.7	52.5	90.1	97.3	104.8	106.1	109.2	111.1	115.2	117.0	118.5	120.6	127.2	136.5	–
Denmark	3.9	11.1	45.1	93.5	97.9	102.4	106.0	108.1	112.8	116.6	119.6	127.3	130.2	136.5	143.2	150.0
France	4.3	10.5	41.2	90.9	96.4	103.1	106.5	110.4	112.2	111.8	112.7	116.6	122.8	128.3	135.2	139.1
Germany	8.1	20.7	53.6	89.4	91.5	106.4	111.8	117.6	123.3	125.7	127.6	130.6	137.4	142.0	145.5	148.9
Italy	1.8	5.3	30.4	87.6	94.2	105.7	106.8	111.3	119.0	123.0	122.2	124.2	127.8	132.5	135.7	140.0
Netherlands	6.2	19.4	60.5	89.8	94.8	104.5	109.0	112.1	114.4	117.2	122.0	126.0	132.0	138.2	147.3	–
Norway	4.7	11.8	39.0	92.3	97.5	101.5	104.4	109.2	113.6	118.7	125.7	133.0	140.5	148.9	157.9	164.6
Sweden	4.1	10.7	37.3	87.8	95.5	97.4	99.8	106.8	115.2	121.0	125.6	130.3	136.8	143.8	148.8	154.3
United Kingdom	2.9	6.1	32.0	82.9	93.8	104.5	107.3	108.8	111.4	115.7	123.0	129.9	137.6	144.3	152.2	160.3
Unit labor costs (national currency basis)																
United States	–	–	78.8	93.7	97.6	100.6	98.5	94.8	93.5	91.9	92.8	91.9	92.8	93.9	90.9	92.3
Canada	26.4	31.1	65.2	94.6	99.6	96.4	93.6	94.3	97.5	96.2	96.7	94.9	92.5	97.4	97.2	99.4
Japan	31.1	43.6	92.1	95.9	97.5	101.0	101.4	97.5	94.0	93.0	95.2	90.6	83.6	84.4	87.8	84.7
Belgium	30.1	41.7	80.3	93.0	98.1	102.3	97.9	96.4	95.5	91.8	92.2	94.4	92.2	95.9	96.4	–
Denmark	15.3	23.9	54.2	95.0	97.6	102.2	94.2	96.1	102.8	98.8	101.9	103.4	102.8	107.3	109.0	109.6
France	21.7	26.8	67.0	96.8	99.3	102.0	97.8	96.5	97.8	91.9	88.1	87.6	86.2	86.6	87.2	88.0
Germany	27.8	39.8	69.4	90.3	93.1	104.5	102.0	104.7	107.5	104.5	104.6	107.6	108.1	111.2	111.1	110.8
Italy	7.2	11.4	38.7	90.7	98.0	104.5	101.9	103.2	109.8	111.4	110.3	112.3	112.6	116.2	121.1	126.2
Netherlands	32.9	50.4	87.6	91.1	95.7	102.4	96.4	95.6	95.9	96.5	98.3	99.1	99.5	104.3	108.8	112.6
Norway	12.6	20.0	50.0	94.2	99.2	101.9	104.8	108.4	110.8	116.4	125.7	128.4	131.9	135.6	141.3	144.9
Sweden	15.0	20.6	51.0	92.9	100.0	90.8	84.7	85.8	89.0	85.8	84.0	80.1	77.9	84.4	80.2	78.6
United Kingdom	9.8	14.1	59.0	93.0	100.0	100.7	99.4	102.5	105.7	108.2	113.5	114.3	113.7	115.4	119.2	118.9
Unit labor costs (U.S. dollar basis)																
United States	–	–	78.8	93.7	97.6	100.6	98.5	94.8	93.5	91.9	92.8	91.9	92.8	93.9	90.9	92.3
Canada	32.9	36.0	67.4	98.0	105.1	90.3	82.8	83.0	86.4	84.0	78.8	77.2	75.2	76.0	74.8	85.8
Japan	11.0	15.4	51.5	83.9	91.8	115.3	125.8	131.6	109.5	97.4	92.2	101.0	98.4	88.0	88.9	92.6
Belgium	19.4	27.0	88.3	89.5	92.3	95.1	94.2	105.2	99.1	82.4	81.6	80.2	67.8	68.4	72.6	–
Denmark	13.4	19.3	58.1	92.7	92.0	95.1	89.4	103.6	107.0	90.2	91.7	89.3	76.7	77.8	83.5	100.6
France	23.4	25.7	83.9	94.1	93.1	95.3	93.4	102.5	101.2	83.3	79.1	75.3	64.2	62.6	66.5	80.4
Germany	10.4	17.1	59.6	87.3	87.5	98.7	98.2	114.2	111.6	94.0	92.9	91.5	79.7	79.5	83.9	100.1
Italy	14.3	22.3	55.7	93.3	97.3	81.8	77.9	78.0	87.7	80.6	78.2	76.2	66.2	66.2	72.9	90.9
Netherlands	15.3	24.5	77.5	87.9	90.0	96.9	93.2	104.8	100.0	87.0	87.2	84.3	73.3	74.5	82.1	101.7
Norway	11.0	17.4	62.9	93.6	95.0	89.2	92.3	106.4	106.6	102.1	103.5	102.2	93.0	93.7	110.0	127.2
Sweden	16.9	23.1	70.2	91.3	96.3	67.8	64.0	70.0	77.3	65.4	61.5	56.4	49.5	47.6	48.1	56.6
United Kingdom	15.6	19.1	77.6	93.9	100.0	85.6	86.2	91.6	93.4	100.4	106.5	104.7	97.6	94.0	101.4	110.0

NOTE: Data for Germany for years before 1991 are for the former West Germany. Data for 1991 onward are for unified Germany. Dash indicates data not available.

55. Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]												
	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]	2000[4]	2001[4]
PRIVATE SECTOR[5]													
Total cases	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7	6.3	6.1	5.7
Lost workday cases	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1	3.0	3.0	2.8
Lost workdays	78.7	84.0	86.5	93.8	–	–	–	–	–	–	–	–	–
Agriculture, forestry, and fishing[5]													
Total cases	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9	7.3	7.1	7.3
Lost workday cases	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9	3.4	3.6	3.6
Lost workdays	100.9	112.2	108.3	126.9	–	–	–	–	–	–	–	–	–
Mining													
Total cases	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9	4.4	4.7	4.0
Lost workday cases	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9	2.7	3.0	2.4
Lost workdays	137.2	119.5	129.6	204.7	–	–	–	–	–	–	–	–	–
Construction													
Total cases	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8	8.6	8.3	7.9
Lost workday cases	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0	4.2	4.1	4.0
Lost workdays	143.3	147.9	148.1	161.9	–	–	–	–	–	–	–	–	–
General building contractors:													
Total cases	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0	8.5	8.4	8.0	7.8	6.9
Lost workday cases	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0	3.7	3.9	3.7	3.9	3.5
Lost workdays	137.3	137.6	132.0	142.7	–	–	–	–	–	–	–	–	–
Heavy construction, except building:													
Total cases	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0	8.7	8.2	7.8	7.6	7.8
Lost workday cases	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3	4.3	4.1	3.8	3.7	4.0
Lost workdays	147.1	144.6	160.1	165.8	–	–	–	–	–	–	–	–	–
Special trades contractors:													
Total cases	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1	8.9	8.6	8.2
Lost workday cases	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1	4.4	4.3	4.1
Lost workdays	144.9	153.1	151.3	168.3	–	–	–	–	–	–	–	–	–
Manufacturing													
Total cases	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7	9.2	9.0	8.1
Lost workday cases	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7	4.6	4.5	4.1
Lost workdays	113.0	120.7	121.5	124.6	–	–	–	–	–	–	–	–	–
Durable goods:													
Total cases	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7	10.1	–	8.8
Lost workday cases	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1	5.1	5.0	4.8	–	4.3
Lost workdays	116.5	123.3	122.9	126.7	–	–	–	–	–	–	–	–	–
Lumber and wood products:													
Total cases	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2	13.5	13.2	13.0	12.1	10.6
Lost workday cases	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8	6.5	6.8	6.7	6.1	5.5
Lost workdays	177.5	172.5	172.0	165.8	–	–	–	–	–	–	–	–	–
Furniture and fixtures:													
Total cases	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2	12.0	11.4	11.5	11.2	11.0
Lost workday cases	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4	5.8	5.7	5.9	5.9	5.7
Lost workdays	–	–	–	128.4	–	–	–	–	–	–	–	–	–
Stone, clay, and glass products:													
Total cases	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4	11.8	11.8	10.7	10.4	10.1
Lost workday cases	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0	5.7	6.0	5.4	5.5	5.1
Lost workdays	149.8	160.5	156.0	152.2	–	–	–	–	–	–	–	–	–
Primary metal industries:													
Total cases	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0	15.0	14.0	12.9	12.6	10.7
Lost workday cases	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8	7.2	7.0	6.3	6.3	5.3
Lost workdays	168.3	180.2	169.1	175.5	–	–	–	–	–	–	–	–	11.1
Fabricated metal products:													
Total cases	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4	14.2	13.9	12.6	11.9	11.1
Lost workday cases	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2	6.4	6.5	6.0	5.5	5.3
Lost workdays	147.6	155.7	146.6	144.0	–	–	–	–	–	–	–	–	–
Industrial machinery and equipment:													
Total cases	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9	10.0	9.5	8.5	8.2	11.0
Lost workday cases	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0	4.1	4.0	3.7	3.6	6.0
Lost workdays	86.8	88.9	86.6	87.7	–	–	–	–	–	–	–	–	–
Electronic and other electrical equipment:													
Total cases	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8	6.6	5.9	5.7	5.7	5.0
Lost workday cases	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1	3.1	2.8	2.8	2.9	2.5
Lost workdays	77.5	79.4	83.0	81.2	–	–	–	–	–	–	–	–	–
Transportation equipment:													
Total cases	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3	15.4	14.6	13.7	13.7	12.6
Lost workday cases	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0	6.6	6.6	6.4	6.3	6.0
Lost workdays	138.6	153.7	166.1	186.6	–	–	–	–	–	–	–	–	–
Instruments and related products:													
Total cases	5.6	5.9	6.0	5.9	5.6	5.9	5.3	5.1	4.8	4.0	4.0	4.5	4.0
Lost workday cases	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3	2.3	1.9	1.8	2.2	2.0
Lost workdays	55.4	57.8	64.4	65.3	–	–	–	–	–	–	–	–	–
Miscellaneous manufacturing industries:													
Total cases	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1	8.4	7.2	6.4
Lost workday cases	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9	4.0	3.6	3.2
Lost workdays	97.6	113.1	104.0	108.2	–	–	–	–	–	–	–	–	–

See footnotes at end of table.

55. Continued—Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 workers[3]												
	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]	2000[4]	2001[4]
Nondurable goods:													
Total cases	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2	7.8	7.8	6.8
Lost workday cases	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6	4.4	4.3	4.2	4.2	3.8
Lost workdays	107.8	116.9	119.7	121.8	–	–	–	–	–	–	–	–	–
Food and kindred products:													
Total cases	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0	14.5	13.6	12.7	12.4	10.9
Lost workday cases	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0	8.0	7.5	7.3	7.3	6.3
Lost workdays	174.7	202.6	207.2	211.9	–	–	–	–	–	–	–	–	–
Tobacco products:													
Total cases	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7	5.9	6.4	5.5	6.2	6.7
Lost workday cases	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8	2.7	3.4	2.2	3.1	4.2
Lost workdays	64.2	62.3	52.0	42.9	–	–	–	–	–	–	–	–	–
Textile mill products:													
Total cases	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8	6.7	7.4	6.4	6.0	5.2
Lost workday cases	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6	3.1	3.4	3.2	3.2	2.7
Lost workdays	81.4	85.1	88.3	87.1	–	–	–	–	–	–	–	–	–
Apparel and other textile products:													
Total cases	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4	7.0	6.2	5.8	6.1	5.0
Lost workday cases	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3	3.1	2.6	2.8	3.0	2.4
Lost workdays	80.5	92.1	99.9	104.6	–	–	–	–	–	–	–	–	–
Paper and allied products:													
Total cases	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9	7.3	7.1	7.0	6.5	6.0
Lost workday cases	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8	3.7	3.7	3.7	3.4	3.2
Lost workdays	132.9	124.8	122.7	125.9	–	–	–	–	–	–	–	–	–
Printing and publishing:													
Total cases	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0	5.7	5.4	5.0	5.1	4.6
Lost workday cases	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.7	2.8	2.6	2.6	2.4
Lost workdays	63.8	69.8	74.5	74.8	–	–	–	–	–	–	–	–	–
Chemicals and allied products:													
Total cases	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8	4.8	4.2	4.4	4.2	4.0
Lost workday cases	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4	2.3	2.1	2.3	2.2	2.1
Lost workdays	63.4	61.6	62.4	64.2	–	–	–	–	–	–	–	–	–
Petroleum and coal products:													
Total cases	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6	4.3	3.9	4.1	3.7	2.9
Lost workday cases	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5	2.2	1.8	1.8	1.9	1.4
Lost workdays	68.1	77.3	68.2	71.2	–	–	–	–	–	–	–	–	–
Rubber and miscellaneous plastics products:													
Total cases	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3	11.9	11.2	10.1	10.7	8.7
Lost workday cases	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3	5.8	5.8	5.5	5.8	4.8
Lost workdays	147.2	151.3	150.9	153.3	–	–	–	–	–	–	–	–	–
Leather and leather products:													
Total cases	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7	10.6	9.8	10.3	9.0	8.7
Lost workday cases	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5	4.3	4.5	5.0	4.3	4.4
Lost workdays	130.4	152.3	140.8	128.5	–	–	–	–	–	–	–	–	–
Transportation and public utilities													
Total cases	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3	7.3	6.9	6.9
Lost workday cases	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1	4.8	4.3	4.4	4.3	4.3
Lost workdays	121.5	134.1	140.0	144.0	–	–	–	–	–	–	–	–	–
Wholesale and retail trade													
Total cases	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5	6.1	5.9	6.6
Lost workday cases	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9	3.0	2.8	2.7	2.7	2.5
Lost workdays	63.5	65.6	72.0	80.1	–	–	–	–	–	–	–	–	–
Wholesale trade:													
Total cases	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6	6.5	6.5	6.3	5.8	5.3
Lost workday cases	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4	3.2	3.3	3.3	3.1	2.8
Lost workdays	71.9	71.5	79.2	82.4	–	–	–	–	–	–	–	–	–
Retail trade:													
Total cases	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5	6.1	5.9	5.7
Lost workday cases	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8	2.9	2.7	2.5	2.5	2.4
Lost workdays	60.0	63.2	69.1	79.2	–	–	–	–	–	–	–	–	–
Finance, insurance, and real estate													
Total cases	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4	2.2	.7	1.8	1.9	1.8
Lost workday cases	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	.9	.5	.8	.8	.7
Lost workdays	17.6	27.3	24.1	32.9	–	–	–	–	–	–	–	–	–
Services													
Total cases	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0	5.6	5.2	4.9	4.9	4.6
Lost workday cases	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6	2.5	2.4	2.2	2.2	2.2
Lost workdays	51.2	56.4	60.0	68.6	–	–	–	–	–	–	–	–	–

[1] Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985–88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

[2] Beginning with the 1992 survey, the annual survey measures only nonfatal injuries and illnesses, while past surveys covered both fatal and nonfatal incidents. To better address fatalities, a basic element of workplace safety, BLS implemented the Census of Fatal Occupational Injuries.

[3] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (N/EH) X 200,000, where:
N = number of injuries and illnesses or lost workdays;
EH = total hours worked by all employees during the calendar year; and
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

[4] Beginning with the 1993 survey, lost workday estimates will not be generated. As of 1992, BLS began generating percent distributions and the median number of days away from work by industry and for groups of workers sustaining similar work disabilities.

[5] Excludes farms with fewer than 11 employees since 1976.

NOTE: Dash indicates data not available.

56. Fatal occupational injuries by event or exposure, 1997-2002

Event or exposure[1]	Fatalities			
	1997-2001 average	2001[2]	2002	
		Number	Number	Percent
Total	6,036	5,915	5,524	100
Transportation incidents	2,593	2,524	2,381	43
Highway incident	1,421	1,409	1,372	25
Collision between vehicles, mobile equipment	697	727	635	11
Moving in same direction	126	142	155	3
Moving in opposite directions, oncoming	254	257	202	4
Moving in intersection	148	138	145	3
Vehicle struck stationary object or equipment	300	297	326	6
Noncollision incident	369	339	373	7
Jackknifed or overturned—no collision	300	273	312	6
Nonhighway (farm, industrial premises) incident	368	326	322	6
Overturned	202	158	164	3
Aircraft	248	247	192	3
Worker struck by a vehicle	382	383	356	6
Water vehicle	99	90	71	1
Rail vehicle	68	62	64	1
Assaults and violent acts	964	908	840	15
Homicides	709	643	609	11
Shooting	567	509	469	8
Stabbing	64	58	58	1
Other, including bombing	78	76	82	1
Self-inflicted injuries	221	230	199	4
Contact with objects and equipment	995	962	873	16
Struck by object	562	553	506	9
Struck by falling object	352	343	303	5
Struck by flying object	58	60	38	1
Caught in or compressed by equipment or objects	290	266	231	4
Caught in running equipment or machinery	156	144	110	2
Caught in or crushed in collapsing materials	126	122	116	2
Falls	737	810	714	13
Fall to lower level	654	700	634	11
Fall from ladder	111	123	126	2
Fall from roof	155	159	143	3
Fall from scaffold, staging	91	91	87	2
Fall on same level	61	84	63	1
Exposure to harmful substances or environments	529	499	538	10
Contact with electric current	291	285	289	5
Contact with overhead power lines	134	124	122	2
Contact with temperature extremes	41	35	60	1
Exposure to caustic, noxious, or allergenic substances	106	96	98	2
Inhalation of substances	52	49	49	1
Oxygen deficiency	89	83	90	2
Drowning, submersion	71	59	60	1
Fires and explosions	197	188	165	3
Other events or exposures[3]	21	24	13	–

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

[2] The BLS news release issued Sept. 25, 2002, reported a total of 5,900 fatal work injuries for calendar year 2001. Since then, an additional 15 job-related fatalities were identified, bringing the total job-related fatality count for 2001 to 5,915.

[3] Totals for 2001 exclude fatalities from the September 11 terrorist attacks.

[3] Includes the category "Bodily reaction and exertion."

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dash indicates less than 0.5 percent.

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